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CLINICAL LECTURES.

CATARRHAL COLITIS—"WALKING" PNEUMONIA—GASTRO-INTESTINAL SYMPTOMS—AORTIC ANEURISM.

BY FRANCIS DELAFIELD, M. D.,

PROFESSOR OF PATHOLOGY AND PRACTICE OF MEDICINE, COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

Catarrhal Colitis.

Gentlemen: This man says he is fifty-three years old, and a painter by trade. For twenty years he has had some stomach symptoms, including distress after eating, and occasional vomiting of food; and he has always been constipated. But the illness for which he comes here to-day, is one which he has had only five weeks. During this time he has had ten or twelve small passages daily, and has also passed blood and mucus. His temperature to-day is 98.4° F.; his urine has a specific gravity of 1.013; it contains no albumin.

It is hardly necessary, I think, for us to take into account his old history of gastric catarrh, for that has no immediate bearing upon his present condition; what has brought him here is the illness which has lasted five weeks. The many passages which he has during the day are not preceded by pain. As you see, there is nothing out of the way about the urine, except that the specific gravity is a little low. The man is not confined to bed; he is able to be up and about.

The first question would be: Where is the lesion which has caused these numerous passages? You reply that it is in the colon. To be more definite, it is in the lower part of the colon. We can judge that from the frequent and continued passage of blood and mucus and from the fact that the passages are small. This usually means that the upper part of the colon is not involved, and that the lesion is confined to the lower part.

Then the question arises, What sort of

lesion is it? It is an inflammation. What kind of inflammation? You will remember that in the colon one of three forms of inflammation may be present, namely: catarrhal, croupous, or follicular. In this case we have the history of catarrhal colitis, which has been going on for five weeks, and was apparently at first subacute, but now has the characteristics of a chronic inflammation. We do not know exactly the history of the first week. The trouble may have commenced acutely; but the impression which we get from the man's story is that it followed first a subacute and then a chronic course.

Now the question arises: How is the man to be cured of his trouble? It has already lasted five weeks; and the longer it lasts the harder it will be to cure it. It is a matter of a good deal of importance for this man, not only to get better, but to get better as soon as possible; for in all these chronic catarrhal inflammations the longer they last the worse they are. This man, in the first place, ought to go to bed and stay there. He ought not to be up and about. In the second place, he ought, I imagine, to be exclusively on a milk diet. It is impossible to say positively whether he ought to be exclusively on a milk diet, or exclusively on a meat diet, or on a diet partly of meat and partly on milk, until a trial has been made; but one or other of these exclusive diets, he ought to be placed upon.

As to medicinal treatment: taking him as he is now I should give him no medicine by the mouth, but I should give him, at first, twice a day a large enema of water as hot as it could be borne without being likely to scald, and containing boric acid, one drachm to the pint. A quart of the solution should be used at each injection. That is all that I would do at first, until I saw whether a real improvement could be brought about in that way.

"Walking" Pneumonia.

The following is the history which we have obtained from this young man: He is thirty-two years old, is a peddler by occupation, and has been more or less intemperate. Six days ago, while out at his work, he felt pain and oppression across the lower part of the chest, and felt so sick that he went home to bed. While at home he had a chilly feeling. There has been a repetition of the chills with some sweating. He is not conscious of having had fever; that is, he has not felt particularly hot. Besides this he has had a cough, with some mucous expectoration. Four days ago he had several movements of the bowels during twenty-four hours. Last night he vomited. Yesterday his temperature was 101° F.; to-day it is 101.8°. His urine has a specific gravity of 1.011; it contains no albumin.

When we look at the man we notice a certain amount of tremulousness which might very well, however, belong to his old alcoholic history. He does not look very sick, yet he looks like a man who is suffering from some real illness. His tongue is moist, and is very slightly coated.

When we examine the chest we find on the right side, in front, from the clavicle down to the fourth or fifth ribs, very marked dulness on percussion; the breathing is not as loud over this region as it is over the corresponding region on the left side. The abdomen bears no marks of eruption.

Taking this history in connection with the man's present condition, we may ask, What is the disease from which he is suffering? Of course we are embarrassed by want of knowledge of the man's previous history, particularly the physical signs, and we might make an erroneous diagnosis at this moment. But we must take the case as it stands, suppose the history given is true and fairly complete, that he was well until last Friday, that he was then taken sick in the manner described, and that no unknown conditions existed; from what, then, is the man suffering? You say pneumonia. Yes, I think lobar pneumonia of the right upper lobe is the correct diagnosis. It is one of those cases of pneumonia which are not very common, in which we find the patient walking about. Of course most people with lobar pneumonia on the fifth day would be sick abed, and would be looking a great deal worse than this man does; but from time to time we meet with cases like this one. The patients walk into the hospital or dispensary, although at home they had been abed. They feel sick, yet they have enough strength to get up and go out. These cases, although they look very well the time you see them, yet require quite as much care as those cases which look sicker at first. They do not always continue to behave quite as well as they begin. There is never any question as to the right thing for them to do, in one regard: viz., to go to bed and remain there until the consolidation of the lung disappears. For a patient situated as

this man is, the only place for him is a hospital. To stay, as he has been staying, in his own room, without proper comforts, would be very much against him. But taking the man as he stands, he is a better example of lobar pneumonia, behaving in this exceptional way, than I am often able to show you. Yet it occasionally does behave in this way, and is then easily overlooked. If this man's chest were not examined the diagnosis could not be made. You would think very likely that he was suffering either from typhoid fever or one of the irregular fevers which are so common here. But the moment that we get such pronounced physical signs as we have here, it at once helps us in the diagnosis. It does not follow because these patients are able to get up, that the pneumonia is lighter than in others. The patients may be tougher, and bear the disease with less evidence of prostration.

Gastro-Intestinal Symptoms.

This woman is an Italian from whom we are able to get only an imperfect history. She is forty-eight years old, and for eight years has had some gastric symptoms with constipation. Her own description of the symptoms is fairly characteristic; it is that of a good deal of flatulence with more or less colic. During the past three months she has been worse, having had severe pain in the abdomen, constipation. and vomiting. The constipation has been very marked. She has lost flesh. She has never vomited blood. She complains chiefly of pain, which she refers usually to the left hypochondriac region. The urine is normal.

On looking at the abdomen it appears a little fallen in, but there is nothing unusual in the contour. There is more tenderness on the left side than on the right on superficial pressure, but firm deep pressure causes her less pain. No tumor can be felt any place. The doctor who brought her here says he has made an examination per rectum, passing the finger high up, and found nothing. I do not think I am able to make a positive diagnosis. The appearance of the woman is that of a person who has some real sickness, and from her symptoms what one would naturally look for would be a tumor; a tumor connected with the stomach or with the intestines. Such a tumor, however, can not be felt, although the abdominal wall is thoroughly relaxed, so that if a tumor of any size were present one ought to be able to feel it.

It is always perfectly possible, indeed it is not even unusual, for a person to pass into as bad a condition as this woman is in without any other cause than a chronic catarrhal gastritis, constipation, and flatulence, and an irritable condition of the colon. Yet when we first see such a case there is always an element of doubt. It is always possible that after all a tumor is present, but so small that we cannot feel it, especially if it is one of the flat infiltrations of the walls of the stomach which hardly give a tumor at all, yet which behave like cancer. The best test in these cases usually is to try the effect of treatment, and observe whether they do, or do not, improve. If it is only a catarrhal gastritis and a disturbance of the colon they get better. If it is a new growth, of course they go on getting steadily worse.

I should suppose the proper way to manage this case would be to put the woman on an exclusive milk diet, to wash out the stomach every day with warm water, and see that she has a movement of the bowels every day either by means of an enema or by means of medicine, and in a woman of her age probably the best medicine for moving the bowels would be a combination of aloes and strychnia.

Aneurism of the Arch of the Aorta.

Our next patient is a large man, thirty-seven years old, and a carpenter by occupation. Last winter he had an attack of pneumonia, and has not been able to work since. He has had bronchitis, pain across the chest, hoarseness, cough, and shortness of breath. He gained some in flesh during the past summer, but is still unable to work. He has difficulty in speaking, and examination with the laryngoscope shows paralysis of the left vocal cord.

Physical examination further reveals dulness over the upper part of the chest, beginning well over on the left side and extending over to the right side of the sternum. Over the same portion of the chest there is a distinct pulsation, and those who are near can see my hand rise and fall with the pulsations through the walls of the chest. Yet the heart's action is not particularly forcible; it does not correspond in force with the pulsation in this region. There is some difference between the contour of the chest in this region and in the corresponding region on the other side, it being fuller on this. There is no murmur, but the heart is some-

what increased in size. The left radial pulse is weaker than the right.

This case reminds us of one present last Thursday—a man in whom we also found dulness on percussion over the upper portion of the chest on the left side, who in the same way had lost his voice, the laryngoscope showing paralysis of one vocal cord. The man had some dyspnœa on exertion. But there was no change in the contour of the chest at all. There was no bulging, and no pulsation. There was nothing but marked dulness on percussion, and evidence of pressure backward on one recurrent laryngeal nerve, shown by the paralysis of the vocal cord. You may remember that in that man the diagnosis, although not positive, was probably a tumor; not an aneurism, but a new growth within the cavity of the thorax. In the present case, with dulness in the chest at the same location, with paralysis of one of the vocal cords, and hoarseness, you observe that other symptoms are present to make the diagnosis of aneurism perfectly straightforward. There is not only dulness here, but there is some bulging of the chest, a distinct heaving impulse, yet no murmur; there is hypertrophy of the left ventricle of the heart, the radial pulse is weaker on the left side than on the right side. Still further, this man is much less able to work than the other. Although he has kept his flesh fairly well, and although he is well enough nourished, yet he is incapacitated from work by the presence of an aneurism of the transverse and descending portion of the arch of the aorta, for that is the seat of the trouble in his case. In showing you this case you can better appreciate why I was in doubt about the diagnosis in the case presented last week. It was more probable, in that case, that the tumor was a new growth, but the diagnosis was not positive. In this case there is no doubt about the diagnosis.

Number of Dentists in Germany.—According to Dr. Paul Börner's "Reichs-Medicinal Kalendar für Deutschland" for the year 1888 there are 16,864 medical men and 514 dentists in practice among a population of 46,840,587 inhabitants in the German Empire, while the number of chemists' shops is 4,671, and of hospitals 2,737. In face of these figures, it may be truly said that the dental profession is not overcrowded in the Fatherland.

DIABETES MELLITUS.[1]

BY JAMES TYSON, M. D.,

PROFESSOR OF CLINICAL MEDICINE, UNIVERSITY OF PENNSYLVANIA; ONE OF THE PHYSICIANS TO THE PHILADELPHIA HOSPITAL.

Gentlemen: The patient whom I show you this morning presents a brief, but interesting history. The family history, which is not altogether unimportant in this disease, is, in her case, negative. As to her own history, she has had small-pox, typhoid and relapsing fever. Her work has been that of a domestic. She is sixty-eight years old, and has been a hard worker through life, as indeed her appearance shows. There is no history of syphilis; but she has always suffered from constipation.

Her present disease began about one year ago, and announced itself by dryness of the skin and mouth, thirst, increased urination and cramps. These last occurred especially at night. Her most distinctive symptoms were gradual emaciation, increased urination, thirst and cramps in the legs. This combination at once suggests an examination of the urine for sugar. There are several tests for sugar; but I shall use that of Fehling, because it is the best, the quickest and the most satisfactory. It can be used roughly as a quantitative test even in the consulting room, because one-half a cubic centimetre of the solution is just decolorized by five milligrams of sugar, or, to present the subject in another form, a quantity of urine that will be decolorized by an equal volume of Fehling's solution contains one-half of one per cent. of sugar. To use Fehling's solution it is best to dilute it first with four parts of water; because, if it has spoiled, as it easily does, this dilution will indicate it more quickly; while the color of the undiluted Fehling's solution is too dense for us to recognize easily the exact moment of the complete reduction of the copper. Before attempting the test with the urine, the quantity of Fehling's solution used should be boiled, for the boiling will of itself precipitate the suboxide of copper if the solution has spoiled. By boiling this sample of Fehling's before you, I show that it is intact. Now by boiling together the urine and Fehling's solution in equal quantities, I at once get a reduction of the protoxide to the suboxide of copper, and from its precipitation

[1] Delivered at the Philadelphia Hospital.

a change in the color of the mixture. Moreover, as the solution is more than reduced, it is plain there is present more than one-half of one per cent. of sugar in the sample of urine. If the sugar occurs in such a large quantity as is evidently here present, it is better to dilute the urine if we desire to make a quantitative analysis.

The second question to decide is the amount of the urine and sugar passed in a day. When the patient first came into the hospital, ten days ago, she passed three hundred and twenty ounces of urine during the day. This amount gradually increased until on her seventh day in the hospital she voided during the twenty-four hours four hundred and forty ounces, which contained two and a half per cent. of sugar, or eight ounces in all. Up to this time she has been on the common, mixed diet of the hospital, because we want to know precisely where we stand before beginning any plan of treatment. The ordinary quantity of urine passed a day in health is from forty to fifty ounces. These facts alone enable us to say with certainty that the patient has diabetes mellitus.

It may be said of this disease that there is perhaps none of which there is so little preciseness of knowledge when contrasted with the amount of information which has been in various ways brought to bear upon it. It may be said, however, that there are three difficult conditions characterized by glycosuria. The first is a simple glycosuria, caused by the ingestion of too large amount of sugar and starch, which disappears on the restriction or withdrawal from the patients' food of these substances. There can be no doubt, however, that such conditions, if neglected, may go on to true diabetes. These patients do not pass large quantities of water; they have no thirst, nor dryness of the mucous membranes, and their glycosuria is generally overlooked until the patient attempts to get his life insured or has his urine analyzed for some other reason.

The second form of glycosuria is the result of lesion in certain portions of the brain, either by degenerative changes, traumatism, or by tumors most frequently, either directly or indirectly connected with the floor of the fourth ventricle. This condition may be called a symptomatic diabetes, and, if the nervous condition upon which it depends can be cured, the glycosuria will disappear. The patients perish, as a rule, not from the glycosuria, but from the lesion of which it is merely a symptom.

The third variety is the essential or real diabetes, and of its exact pathology there is least known. Its striking symptoms are the passing of large quantities of saccharine urine, great thirst and progressive emaciation. Here too the nervous system becomes the medium of the glycosuria by influencing the circulation in the liver. This organ, it is well known, is the seat where the starch is converted into glycogen, and thence into glucose or grape sugar. In diabetes mellitus, from some illy understood nervous condition, this latter change takes place too rapidly, and the glucose passes out in the urine. At the same time, in case after case of essential diabetes, the autopsy has afforded no satisfactory explanation of the condition. Let me, however, emphasize this fact, that diabetes mellitus is not a disease of the kidneys, as so many suppose. It is a general affection that simply manifests itself through these organs.

The fact that sugar and starch are not appropriated by the system, but merely pass directly through it, in the shape of glucose, furnishes us with the key of treatment, viz.: to omit these two substances from the patient's food. This alone, in many cases, will stop the disease in its early stages, and while this is the case there is no need of medication by drugs.

My method of managing a case of diabetes mellitus is as follows: While the patient is living on a mixed food a quantitative analysis of his urine for sugar is made. Then remove from his diet all starchy or saccharine articles. The quantities of sugar and of urine will immediately decrease. In many cases, if instituted sufficiently early, no other treatment will be needed. Nor is it always necessary to remove all articles that contain traces of these offensive materials. Indeed, it often happens that a too exclusively nitrogenous diet will not agree with the patient, even if he could be made to tolerate it.

To speak more specifically upon this subject of a patient's diet, you should eliminate: 1. Bread, which is the worst thing he can eat. Gluten flours are, in the main, frauds. They contain from sixty to seventy per cent. of starch, while common wheaten flour contains only seventy-five per cent. There are one or two exceptions to this rule, in which the samples of gluten flour contain only from five to ten per cent. of starch; but the

bread made from these is so uninviting, in its appearance and its taste, that most patients prefer to have no bread at all. 2. Sugar is to be absolutely prohibited in all cases. 3. Then potatoes, both Irish and sweet, rice, peas, and the whole category of starchy foods are prohibited.

The articles to be allowed are meat and fish, both fresh and salt. Oysters, though they used to be prohibited, because they contain a small amount of sugar, may be allowed. This objection was theoretical rather than practical, as they do not contain enough sugar to be harmful. Of vegetables allow spinach, celery tops, tomatoes, cabbage and cauliflower. If wines are necessary, recommend those that do not contain sugar, such as claret and very dry sherry, and for this reason whiskey is to be preferred to wine or brandy.

It is a singular fact that certain kinds of sugar are assimilable, at least in mild cases. Such are sugar of milk and that of some fruits; hence milk is not usually interdicted in such cases. Indeed Donkin suggested a treatment by skim-milk, which is efficient in certain cases, not in curing, but in keeping the sugar out while used.

Undoubtedly skim-milk is better than unskimmed. The only explanation of this I can suggest is that in skimmed milk the fat, which is especially difficult for the liver to digest, is removed.

Of fruits, the orange may often be taken with impunity. So may the apple, while the pear and peach are not so harmless. Grapes are especially prejudicial on account of the grape sugar which they contain.

No drugs will remove sugar on an improper diet. I prefer always to do the best I can without them, and finally resort to them as helpers when diet of itself is insufficient. Opium has power to diminish or remove sugar by means of any of its alkaloids. The best has been thought to be codeia, but I find morphia equally efficient. The alkaloids are preferred to the gum opium, because they are more certain in their effects and less bulky in dose. Morphia is one-eighth as costly as codeia. If morphia is used you should begin with one-quarter of a grain a day and increase. I have used as much as forty grains of codeia daily, and fifteen to twenty of morphia, by gradually increasing the dose.

But these remedies are not without disadvantage. In the course of time the mind of the patient, both from the diabetes and the opium, will gradually become sluggish and inactive, and the character less manly and firm, so that it is exceedingly desirable to find a drug that will possess the virtues of opium without its disadvantages.

Lately much has been said about antipyrin, especially by the French physicians, who claim wonderful results. My own experience, though limited, has not sustained this view. It is given both alone and in combination with the bi-carbonate of sodium, of each fifteen grains three or four times a day. With these drugs I treated three cases, all women, with the following results. In the first the sugar fell off slightly, but to less degree than on a more stringent diet. In the second there was no effect. In the third case there was no effect on the sugar, while the patient was nervous and generally miserable until the use of the drug was stopped.

Of the other drugs the reports are uncertain. Ergot does well in some cases, particularly in cases of diabetes insipidus, or in cases that are just on the border line between diabetes insipidus and diabetes mellitus. Patients who pass much urine and little sugar are benefited by ergot. Alkalies are beneficial, especially in the form of alkaline mineral waters, with careful diet. The value of mineral waters or of alkalies without this precaution has never been fully determined. Indeed, the rest and dieting at Karlsbad and other health resorts do as much in most instances to effect the cure as the water; for the use of all drugs without dieting is a loss of time. Of tonics arsenic in some cases is helpful. Martineau in France, following the suggestion of Rouget, has used carbonate of lithium and arseniate of sodium, and claims by this treatment to cure ninety-five per cent. of his patients. A surprising statement, confirmed by no one.

The simplest way to use these drugs is in a pill containing one-twenty-fifth of a grain of the arseniate of sodium, with one-and-a-half grains of the lithium carbonate, to be given twice a day after meals.

In France the doctor's claim on the estate of a deceased patient has precedence of all others. Even the landlord's claims for arrears of rent must yield to the doctor's fee. The courts have decided that as it is an imperative right of humanity that the dying should have the necessary care and treatment, such attendance should be paid for before all other debts.

COMMUNICATIONS.

CASE OF ACONITE POISONING.

BY BYRON F. DAWSON, M. D.,

KEWANNA, INDIANA.

The report of a case of aconite poisoning, by Dr. Clara T. Dercum, in the REPORTER of October 5, 1889, prompts me to send you the following report.

On May 22, 1888, at about 3 P. M., a woman rushed into my office, slammed the door after her, and hastily took a seat, and in a frantic way said, "Oh, for God's sake do something for my baby!" which latter she carried in her arms. Her actions made me first think of an insane person, but the mystery was soon solved. She lived three miles in the country, and while cleaning house a number of bottles of medicine were removed from an old cupboard and placed in a window, where the child, a female, aged about sixteen months, found one, and having removed the cork, placed the bottle to the lips and swallowed an unknown quantity of its contents. The nearly emptied uncorked vial on the floor, and the child, were soon found. The latter began to show symptoms of serious illness, and the mother administered such domestic remedies as she thought the case demanded, as milk, fat meat, etc., not knowing the nature of the medicine taken. Her husband hitched the horse and buggy, and she brought the child to town alone. It was nearly an hour after the poison was swallowed before I saw the case. The child was greatly prostrated, and was vomiting every two or three minutes, the skin was pale, relaxed, cold, and covered with a profuse perspiration; the radial pulse was imperceptible, the heart's action very weak, respiration very feeble and irregular, the eyes partially closed, and the pupils dilated.

I at once administered some brandy and fluid extract of digitalis, which were repeated as often as was considered safe, but the child was vomiting everything taken into the stomach.

It was at this point that the mother produced a one-ounce vial which she said she thought was the cause of the mischief. It contained a few drops of fluid of a reddish color, which I tasted and immediately recognized as tincture of aconite, and at once informed the mother the child had swallowed a rank poison. The medicine had been prescribed during the preceding winter by a neighboring horse-doctor for a horse sick with pneumonia, and, when the vial was shown to him later he recognized the contents by the directions written on the label, and stated it was tincture of aconite.

I had the child wrapped warmly, kept it in a recumbent position, excluded all draughts of air, and persisted in the use of the brandy and digitalis, notwithstanding the child continued to vomit oftener than every five minutes, for the next two hours; but by that time a pulse at the wrist could be felt. In another hour the heart's action and pulse had become stronger, the respirations were deeper and more regular, the perspiration had about ceased, and the fits of vomiting were less frequent. I remained with the case until 9.30 P. M., when the skin was warm, the vomiting had then ceased more than an hour before, the child had nursed her bottle, and was sleeping naturally. I dismissed the case at that time and it required no further attention. The child was in her usual health in a day or two.

THE ANATOMICAL RELATIONS OF LESIONS OF THE HEART AND THE KIDNEYS IN BRIGHT'S DISEASE.[1]

FROM THE STUDY OF THREE HUNDRED AUTOPSIES.

BY HENRY F. FORMAD, B. M., M. D.,

DEMONSTRATOR OF PATHOLOGY AND MORBID ANATOMY, AND LECTURER ON EXPERIMENTAL PATHOLOGY, UNIVERSITY OF PENNSYLVANIA.

(*Concluded from page 694.*)

Considering the two forms of Bright's disease apart, we find that general hypertrophy co-exists more frequently with parenchymatous nephritis, viz., in 29 per cent.; while hypertrophy of the left ventricle alone was met with in 26 per cent. in this form of Bright's disease. Hypertrophy of the left ventricle predominates in interstitial nephritis, showing 44 per cent. to 26 per cent. of the parenchymatous. General hypertrophy occurred in intestitial nephritis in 28 per cent.

[1] Read before the Association of American Physicians, 1889.

I obtained also figures which vary somewhat in the two series of cases tabulated.

Series A. Coroner's and private cases.—Hypertrophy of heart in connection with the parenchymatous forms of nephritis, occurred in 54 per cent. of the cases,[1] and in the interstitial nephritis in 92 per cent.

Series B. Hospital cases.—Hypertrophy of heart in connection with parenchymatous nephritis occurred in 56 per cent. of all cases, and in interstitial nephritis in 60 per cent.[2]

Relation to Valvular Disease.

The relation of valvular disease to the two forms of Bright's disease (the parenchymatous and the interstitial) appears to be an indefinite one.

Valvular disease without hypertrophy proves to be nearly equally distributed between the parenchymatous and the interstitial, occurring in the former in 12 per cent. and in the latter in 13 per cent.

In the chronic interstitial nephritis hypertrophy of the heart without valvular disease was met with in 27 per cent. of all cases, while in the parenchymatous form it was 34.5 per cent.

Hypertrophy of the heart with valvular disease co-existed with chronic interstitial nephritis in 42 per cent., or nearly twice as frequent as in the parenchymatous forms, in which it was 23 per cent. (occurring with equal frequency in the large white, and fatty and contracted kidney).

The degree of hypertrophy appears also to be influenced by valvular disease, and still more by pericarditis, as the following results will show:

	Cases.	Average weight of heart.
Hypertrophy without valvular disease	93	14 ounces
Hypertrophy with valvular disease . .	94	17 "
Hypertrophy with pericarditis	22	18 "

[1] The cases of parenchymatous nephritis recorded in the tables, it will be remembered, all belong to the *chronic* form save fifteen cases, which are of *acute* Bright's disease. These few cases appear, moreover, nearly in equal proportion in the two series, so that a comparison may be fairly made.

[2] There were five cases among the Hospital records of red granular kidney, in which the cause of death was designated as *senility*. As there were many aged persons among the autopsy material of this series, I fear that some more cases of senile atrophy of the kidneys with absence of hypertrophy of the heart have crept into these records. This would explain the discrepancy in the statistical results, viz., 60 per cent. of hypertrophy in the Hospital cases to 92 per cent. in my own cases (in red granular kidney).

The duration of the disease and the age of the patient are evidently probably correlative with the degree of the hypertrophy.

As to the special forms of valvular disease the following table is of interest:

		Valvular Disease.				
		Aortic.	Mitral.	Double.	Total.
Coroner's Cases.					
Parenchymatous .	100 cases,	12 per cent.	12 per cent.	5 per cent.	29 per cent.
Interstitial . . .	50 "	12 (24 per cent.)	4 (8 per cent.)	7 (14 per cent.)	23 (46 per cent.)
Hospital Cases.					
Parenchymatous .	75 cases.	7 (9⅓ per cent.)	14 (18⅔ p. cent.)	10 (13⅓ p. cent.)	31 (41⅓ p. cent.)
Interstitial . . .	75 "	14 (18⅔ p. cent.)	20 (26⅔ p. cent.)	9 (12 per cent.)	43 (57⅓ p. cent.)
Valvular: Grand Total of all Cases.					
In Parenchymatous, ...					34 per cent.
In Interstitial, ...					53 "

The average weight of the hypertrophied heart appears from my tables to be as follows in the different forms of Bright's disease:

	Average weight.
In acute Bright's disease . . .	10 ounces.
In large white kidney	15 "
In fatty and contracted kidney .	14 "
In red granular kidney	17 "

Relation of the Weight of the Body to the Weight of the Heart.

That the former has a great influence upon the apparent degree of the hypertrophy of the heart, may be gleaned of the table that I submit below, in which the important factor, the weight of the body expressed in periods, is considered side by side with the weight of the hypertrophied heart.

TABLE SHOWING RELATION OF WEIGHT OF HEART TO THAT OF BODY.

Weight of the heart as found.	Large white kidneys, including 10 cases acute Bright's disease (54 cases).		Fatty and contracted kidneys (46 cases).		Red granular kidneys (50 cases).	
	Number of cases observed.	Average weight of the bodies.	Number of cases observed.	Average weight of the bodies.	Number of cases observed.	Average weight of the bodies.
Below 10 ounces. .	13	132	3	120	1	190
10–11 " .	5	128	7	130	2	155
11–12 " .	2	134	2	135	2	110
12–13 " .	6	148	4	130	3	130
13–14 " .	5	152	4	134	4	120
14–15 " .	3	138	4	132	. .	. .
15–16 " .	1	145	5	130	6	143
16–17 " .	3	157	2	140	7	122
17–18 " .	.	. .	3	146	5	135
18–19 " .	4	151	2	142	. .	. .
19–20 " .	3	150	1	130	4	138
20–25 " .	9	150	7	152	11	142
25–30 " .	.	. .	2	160	5	163

It will be seen from this that advanced degrees of hypertrophy, viz., the heart weighing above 15 ounces, occurred as follows:

	Cases.	Per cent.
Acute Bright's and large white kidney—heart above 15 ounces	20	37.5
Fatty and contracted kidney—heart above 15 ounces	22	48
Red granular kidney—heart above 15 ounces	38	76

Where there were large hearts, as a rule, valvular disease co-existed, especially when associated with the red granular kidney. Also, with few exceptions, *the largest hearts corresponded more or less with the largest sized bodies.*

MICROSCOPY OF THE HYPERTROPHIED CARDIAC MUSCLE.

There are two points of interest in regard to the microscopical appearance of hypertrophied heart muscle in Bright's disease that I will briefly refer to:

1. Cardiac hypertrophy depends upon simple increase in the bulk of the muscular fibres, viz., a simple, true hypertrophy, and not upon any hyperplasia (increase in number) of the elements. Each individual muscular fibre in the hypertrophied heart shows by accurate micrometry to be two or three times thicker and longer than the normal muscular fibre of the heart; and it is, therefore, not surprising that the latter should become twice or three times enlarged. The hyperplasia of the connective tissue, though quite marked in many specimens, is not an important factor in adding to the bulk or weight of the heart.

2. Necrotic change of the muscular fibres was occasionally observed in some of the largest hearts, especially in limited areas. Yet in many instances this proved to be due to cadaveric change, which I need not explain at this place. I refer to this, only because in some instances it may be mistaken for true ante-mortem fatty metamorphosis of the cardiac muscle.

FATTY METAMORPHOSIS OF HEART.

In the 300 cases of Bright's disease tabulated in this paper fatty metamorphosis of the heart was found to be present in only 26 per cent.; it being absent in 74 per cent.

The distribution of fatty metamorphosis of the hypertrophied cardiac wall in the several forms of Bright's disease proved to be as follows:

Series A—Coroner's and Private Cases.

	Cases.	Per cent
In the large white kidney	8	18
In the fatty and contracted kidney .	15	33
In the red granular kidney . . .	25	50
Fatty metamorphosis, absent or not stated	102	68
Fatty metamorphosis without hypertrophy	16	11
Total of fatty metamorphosis . . .	48	32

Series B—Philadelphia Hospital Cases.

	Cases.	Per cent
In acute Bright's disease	1	20
In the large white kidney	5	14
In the fatty contracted kidney . .	8	23
In the red granular kidney . . .	17	23
Fatty metamorphosis, absent or not stated	119	79
Fatty metamorphosis, without hypertrophy	20	13

Grand Total.

	Cases.	Per cent.
Fatty metamorphosis, present . .	79	26
Fatty metamorphosis, absent . . .	221	74

While it appears that fatty metamorphosis of the heart muscles co-exists more frequently with the red granular kidney, I found that in many of these cases the necrotic change of the muscle was but slight, whereas in conjunction with the fatty and contracted kidney and in some non-hypertrophied hearts it was decidedly more pronounced. The typical brown atrophy of the heart occurred in my cases more commonly in the fatty and contracted kidney, at advanced age and coincident with atheroma of the coronary arteries. The pigmentation around

the nuclei of the muscle is also most conspicuous in these cases.

Fatty metamorphosis whenever met with was fairly indicated by the dilatation of the cardiac walls and distinct yellow or brownish striations beneath the endocardium and particularly in the *columnæ carneæ;* occurring with equal frequency in the right and left chambers.

The method adopted for microscopical examination was an easy one, and the best, viz., teasing in salt water or weak caustic soda solution; nearly every suspicious heart of Series A was examined while fresh, with the results stated in the records. Fatty infiltration and cirrhosis of the interstitial tissue of the cardiac walls was met with in six cases, combined with fatty metamorphosis.

Arterial Changes.

Atheroma of the aorta and some of the larger vessels was observed as follows:

Series A—Coroner's and Private Cases.

	Cases.	Per cent.
In the large white kidney	12	27.5
In the fatty and contracted kidney	29	63
In the red granular kidney	45	90

Series B—Hospital Cases.

	Cases.	Per cent.
In the large white kidney (including one of acute Bright's disease) . .	10	23
In the fatty and contracted kidney	13	37
In the red granular kidney . . .	48	64
Total in both series	157	52

Endarteritis and periarteritis of the renal vessels were studied only in Series A, and showed:

	Cases.	Per cent.
In the large white kidney	3	7
In the fatty and contracted kidney	4	8
In the red granular kidney . . .	41	82

It should be further noted that whereas the first two of these kidney lesions revealed but slight arterial changes, the red granular kidney showed them well pronounced.

Arterial changes, it is seen, come prominently into consideration only in one form of Bright's disease, viz., the red granular kidney, forming only a small portion of the total histological picture of it. It is not my object in the present paper to go into the consideration of this question. I may state, however, that Gull and Sutton in their excellent and original work, "On the Pathology of the morbid state commonly called Bright's Disease" (*Medico-Chirurgical Trans.*, vol. lv, p. 273), appear to have referred exclusively to the primarily contracted kidney when they brought forward their famous theory of "Arterio-capillary Fibrosis." Some of the latter writers on this subject, however, erroneously attribute all forms of Bright's disease to primary vascular changes.

Histological studies in this direction are being conducted, and have been for some time past, in my laboratory by several gentlemen. The results of these investigations, I believe, will prove interesting when published.

Complications.

The prominent complications and concurrent affections other than those already given in my tables, some of which co-operated in the immediate causes of death, are distributed in the 300 cases of Bright's disease as follows:

Hydrothorax 53, pleurisy 40, emphysema 32, peritonitis 21, syphilis 27, alcoholism 18, puerperal diseases 14, tuberculosis 13, meningitis 13, septicemia 12, cirrhosis of liver 11, bronchitis 10, ether narcosis and surgical operation 9, erysipelas 8, gastric cancer 8, aneurism 7, senility 5, cancer of various parts 4, gastric ulcer 4, typhoid fever 3, gangrene 2, scarlatina 2, burns 1, etc. Often two or more of these conditions co-existed.

Average Weight of Kidneys in Bright's Disease.

The *average weight of the kidneys* in the various forms of Bright's disease is of interest and is as follows (in ounces):

	Right.	Left.
Acute Bright's disease . . .	7.65	8.12
Large white kidney	6.91	7.87
Fatty and contracted kidney .	4.74	4.86
Red granular kidney	3.13	3.43
General average of	5.61	6.07

Mortality or Duration of Life in Bright's Disease as seen from the 300 Cases Tabulated.

Series A.—Private and Coroner's Cases

	10–20 years.	20–30 years.	30–40 years.	40–50 years.	50–60 years.	60–70 years.	Over 70 years.
Acute Bright's disease . .	3	2	3	2	0	0	0
Large white kidney	4	15	17	6	1	1	0
Fatty and contracted kidney	0	4	2	14	12	3	1
Red granular kidney . . .	1	4	5	5	16	15	4

SERIES B.—PHILADELPHIA HOSPITAL CASES.

Acute Bright's disease and large white kidney.	4	6	12	7	5	1	1
Fatty and contracted kidney.	1	1	7	7	7	7	4
Red granular kidney . . .	0	3	4	16	17	18	17

SEX AND AGE.

PRIVATE CORONER'S CASES.	No. of cases.	Percentage of Males.	Percentage of Females	Average age in both.
Parenchymatous forms of nephritis	100	58 p. c.	42 p. c.	35 yrs.
Interstitial nephritis	50	68 p. c.	32 p. c.	52 yrs.
PHILADELPHIA HOSPITAL CASES.				
Parenchymatous forms of nephritis	75	69 p. c.	31 p. c.	43 yrs
Interstitial nephritis	75	52 p. c.	48 p. c.	59 yrs.

I admit that as regards many interesting details these studies, as now presented, are deficient. I propose to complete them in the future with such additions as the continuous new supply of material will offer.

The literature on these subjects is very interesting, but I shall not take up space with matters well known to the reader.

EXSECTION IN A CASE OF OLD FRACTURE OF THE BASE OF THE RIGHT RADIUS.[1]

BY J. S. WIGHT, M. D.,

PROFESSOR OF OPERATIVE AND CLINICAL SURGERY AT THE LONG ISLAND COLLEGE HOSPITAL.

On November 29, 1886, A. H., a seaman, twenty-seven years old, fell fifteen feet, striking the palm of his right hand on a plank floor, and breaking the radius just above the wrist-joint. There was much deformity. According to the statement of the patient, he was conveyed to a hospital, where he was under treatment ten weeks, after which he was discharged, with great deformity and disability. In about a week after this he was admitted to another hospital, where he was treated for two months and three days, when he was discharged without any visible improvement.

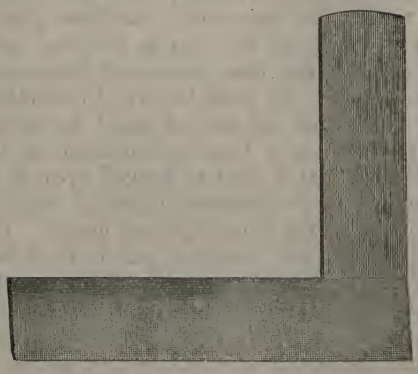
On September 5, 1887, this patient was brought to my office, to see if he could be relieved from his pain, deformity and disability, to an extent that would enable him to support himself. I found an ancient fracture of the base of the right radius. The lower fragment of the radius was nearly three-fourths of an inch in length, and had a complete lateral displacement backward. The lower end of the upper fragment of the radius, having a forward lateral displacement, was pressing firmly against the flexor tendons in front of the wrist. The longitudinal displacement was nearly as great as the length of the lower fragment, so that the wrist appeared to be much enlarged. The radial side of the hand was considerably rotated outward, giving the ulnar side the appearance of rotation inward. The hand and the lower fragment of the radius were dislocated backward from the distal end of the ulna, which was very prominent, forward and inward, adding much to the deformity. The fingers and hand were in a position of flexion to some extent. There was some fibrous union between the fragments, leaving a new point of motion. The motion at the wrist-joint was greatly impaired. And the rotation of the forearm had been abolished. The radial artery could not be found, and had probably been obliterated by the injury or by pressure. The hand was not well nourished; the interosseous muscles were very much atrophied. When in a dependent position, the hand and wrist were greatly swollen. In fact, there was very considerable deformity, accompanied by almost complete disability of the right hand and forearm.

At the time I saw this case, reduction of the hand and the lower fragment of the radius was impossible. At the time of the accident they may have been irreducible. Or being reducible it may have been impossible to keep them in place. Three questions arose in my mind: Shall I let the patient alone, and leave him to get such use as he can out of his injured limb? Shall I amputate the hand, so that he can do something with the one that is left? Shall I exsect the wrist in such a way as to give him some use, however small, of his now disabled right hand? I could not conclude it best to let the patient remain as he was; nor

[1] Read before the Brooklyn Surgical Society, October, 1888.

did I think it right to amputate the hand, though such an operation might in time be required. The best opinion I could form was that a resection ought to be performed. So I proposed and advised, and the patient accepted my proposition.

The patient was then admitted to the College Hospital, where I operated on his wrist, before the medical class, in the following manner: An incision three inches in length was made over the lower end of the ulna, so as to permit the thorough exposure of the bone. A little more than an inch of the distal end of the ulna was removed with a saw. The hand was then forcibly abducted, and the union between the radial fragments was severed. The lower end of the upper radial fragment was then exposed and sawed off even with the cut end of the ulna. The greater part of the lower radial fragment was then removed through the opening already made on the inner aspect of the wrist. Then an incision about two inches in length was made between the extensor primus and the extensor secundus of the thumb. The extensor carpi radialis was drawn aside, so as to give room for the removal of the rest of the lower fragment of the radius. The wound was dressed antiseptically, and the limb was put on my double-angled splint. This splint has an armpiece which meets the forearm piece at



two angles. The longitudinal axis of the armpiece meets the longitudinal axis of the forearm piece at a right angle, and the transverse axis at an obtuse angle equal to the angle at which the long axis of the arm meets the plane of the forearm. The splint is shown in the accompanying illustration.

The position of the hand was good, and there was no difficulty in keeping the parts in place. The drainage-tube was not removed until the end of four weeks. There was considerable inflammation which continued for some time after the operation, and the repair took place slowly, as if the blood supply was defective. The patient was discharged from the hospital in April, 1888, in an improved condition. Some weeks after a few small pieces of necrosed bone came away. It may be remarked that passive motion was made from day to day during his stay in the hospital.

In July, 1888, I saw this patient again, and made the following observations: The right hand was atrophied, being smaller than the other; the fingers have considerable flexion, and the thumb could be voluntarily brought in contact with each of them. The motions of the new joint were nearly one-fourth as great as those of the opposite side, while the rotation of the forearm had been completely lost. The limb was still improving and becoming stronger. The hand was quite useful having considerable prehension; he could pick up and hold small objects with much facility. There was a great gain over what I first found, when he came to me, and when he was entirely helpless. Subsequently this patient obtained light employment, in which he did not have to lift heavy objects, and was thus able to earn his own living.

MASSAGE IN THE TREATMENT OF SPRAINS.

BY MASSEUR KURRE W. OSTROM,

FROM THE ROYAL UNIVERSITY OF UPSALA, SWEDEN.

It is becoming well recognized that massage is of the greatest value in the treatment of sprains, both acute and chronic. The sooner the parts affected are subjected to manipulations, the more rapid the results will ensue.

In beginning, the parts are of course very tender, and no other manipulation should be used than the slight superficial *stroking*, performed by the tips of the fingers or the palm of the hand, and after only from ten to fifteen minutes treatment a decrease of the swelling will be easily noticed. The two or three first treatments should consist only of this centripetal stroking and last no longer than fifteen minutes. As soon as the most acute pain has disappeared, *friction* should be applied, a circular manipulation being performed with the tips of the fingers upon the parts, the aim of this is to force

out deposits from the affected parts, and to distribute them through the surrounding tissues. Every friction should be followed by centripetal strokings, the whole treatment being performed within twenty-five minutes. Dr. Murell says: "After a few treatments the pain, the discoloration, and the swelling disappear as if by magic." The treatment should be applied twice daily, if possible. After the third treatment the movement of the ankle joint is quite free and almost painless. The patient may then be allowed to take a few steps, and if the pain does not recur, the amount of exercise should be increased every day. After each *séance* the ankle should be bandaged with flannel. A water application at night will materially assist the treatment. At the end of the fourth or fifth treatment a few Swedish movements, such as flexion and extension, turning, and rotation of the foot, are to be recommended.

In severe sprains, when there is a rupture of a ligament or a tearing off of the bony parts, the massage treatment is generally contra-indicated; still a careful and educated masseur can greatly assist the surgeon to reduce the swelling and thus make the location of the injury more accessible to him.

Why should we prefer massage treatment before any other remedy for sprains? Simply because the records of cases of sprains treated by massage show that we get better results by this plan of treatment and that we also obtain cures in a much shorter time. Philippeaux says that a slight recent sprain is cured in one sitting, and in severer sprains he has found four to five treatments to be sufficient to put the patient on his feet again. This is no doubt very true, but how much use has the patient of his injured foot after only four or five treatments? Mullier found that the average number of days required to cure sprains by the old way (immobilization and dressings) was 25, while by the massage treatment the average was only 9. Dr. Douglas Graham, the most skillful masseur of America, found that, in several hundreds of cases of sprains and similar affections, the average time needed for recovery was 9 days.

In Germany, where sprains are especially common in the army, massage is exclusively adopted as the only proper treatment.

Some of the most prominent physicians advocate massage as the proper treatment for sprains, and it ought not to surprise any one that they advocated this treatment, when it is a well-known fact that it takes less than half the time to make a complete recovery by this plan as is required with any other. I am perfectly satisfied that the massage treatment for sprains, as well as for many other affections, would be more universally adopted by the medical profession, were it not for the many uneducated "rubbers" who are now so common in the larger cities, claiming to cure anything and everything with a treatment, called by them by the scientific name of "massage," although practically they give nothing but a superficial rubbing, which by no means is massage, and they are apt to do more harm than good, as they generally have no knowledge of the anatomical structure of the parts.

250 North 15th Street.

REST IN THE TREATMENT OF PULMONARY CONSUMPTION.

BY THOMAS J. MAYS, M. D.,

PROFESSOR OF DISEASES OF THE CHEST IN THE PHILADELPHIA POLYCLINIC.

About a year ago I delivered two lectures in the Philadelphia Polyclinic evening course, entitled: *Pulmonary Consumption considered as a Neurosis*,[1] in which I gave expression to a view which had been gradually growing on me during previous years concerning the true nature of pulmonary consumption. In these lectures I formulated my belief that this disease could no longer be regarded as a local inflammation of the lungs but that it must be looked upon as an affection the fundamental lesion of which is a disease of the pneumogastric nerves. Imperfectly as this view was put forth, I had the conviction that it rested on a solid basis, and I have since then investigated the question from every available standpoint, the results of which will be published in book form so soon as I will be able to put the material into proper shape. I will merely say that my earlier idea has been fully confirmed by these later researches, and that the neurotic theory furnishes the only rational explanation of the beginning, the course and termination of pulmonary consumption.

[1] See *Therapeutic Gazette*, Nov. and Dec., 1888; also *Medical News*, May 25, 1889.

Towards the close of the last lecture I said "if we view pulmonary consumption as a neurosis, it is very obvious that, *in order to be consistent* in practice, it is necessary to remodel and revolutionize some of our ideas concerning the treatment of this disease. This part of my subject is so comprehensive, however, that the limited time forbids me to do more at present than merely to touch the most salient points involved in this question. Briefly, I may say it has been established beyond doubt, and that, too, chiefly through the excellent practical researches of Dr. S. Weir Mitchell, that rest, absolute or an approach to it, is one of the most vital factors in the successful treatment of serious nervous diseases. But the idea of rest is contrary to the orthodox methods of managing consumption. Custom has handed down from time almost immemorial, the dictum that exercise is the one indispensable consideration in its treatment, and I apprehend that, on account of this universal impression, the recommendation which I am about to make will be received with a feeling of cold indifference, or, perchance, with opposition. Notwithstanding these risks to which I expose myself, I am constrained to say in the interest of truth so far as I am able to see it, that I believe the prevailing opinion that consumptives must have plenty of exercise is one of the greatest stumbling-blocks in the successful management of this disease. So deeply rooted is this idea in the mind of the public, that patients persist in walking until their vital energies are completely exhausted, when they give up, go to bed, and usually to die."

Exercise is undoubtedly beneficial to those who are strong already, but I contend that it weakens those who are weak already as much as it strengthens the strong. Probably this whole question can best be practically and briefly illustrated by taking an example from the field of finance. It is an old and true saying that money makes money. A man who has a certain amount of capital can make money much more easily than he who has none or very little. If the latter spends as much as he takes in, his finances will be in a crippled condition all his life; but if he halts,—that is, if he diminishes his outflow, and maintains, or increases his former income,—his capital will accumulate, and in time he will be able to compete with other capitalists. So the taking of exercise, which is to be beneficial, implies pre-existing strength, and by putting this strength out at proper interest or to proper use it will grow and accumulate; but he who has no or very little strength at the outset, must reduce his expenditure and enlarge his income, or else he will go into physiological bankruptcy. It has well been said in an editorial on the subject contained in the MED. AND SURGICAL REPORTER of September 7, 1889 (p. 273), that "the consumptive may be regarded as verging towards a state of physiological bankruptcy. The disease makes a fatal drain on his constitutional resources. With him it is a real living warfare between the forces of his body and those of the disease. The line which divides defeat from victory is neither hard nor fast, but constantly shifts its position in accordance with the ebb and flow of his vitality. When he is weak the disease advances, and when he is strong it recedes. The cardinal therapeutic indications are therefore towards a fortification of the constitutional resistance. This can only be accomplished by economizing the bodily forces; and physiological rest is one of the most valuable adjuvants in securing this end."

So far as I am aware, Dr. Weir Mitchell was the first to demonstrate the value of rest in the treatment of phthisis more than ten years ago. He says:[1] "I have ventured, without much hope, to treat three cases of phthisis in the same manner (*i.e.*, with rest, massage, electricity, and feeding). There are cases of this nature in which exercise wearies. One of the cases treated got well and remained well. There was every evidence of pulmonary trouble. No. 2 improved enormously in all respects, and relapsed hopelessly, owing to large and repeated bleeding from piles and rectal fissure. No. 3, a male, 24 years old, was treated by rest and massage, without electricity, and improved so as to resume his work."

As a practical illustration of the value of rest in consumption I now beg to submit the histories of the following cases which have been treated in accordance with the principles advocated in the previous pages.

Case I. B. L., male, aged 30, an accountant, was first seen Oct. 24, 1887. He had been coughing for four years, had hæmoptysis the previous May after playing base-ball. He had lost flesh, but his appetite was fair, and his tongue clean; he had

[1] *Fat and Blood*, page 93.

malaria but no rheumatism, and complained of dyspnœa on exertion. There was no venereal history present, and no phthisical family taint. His temperature was about normal and his weight 137¼ pounds. The two preceding winters he had passed in Colorado and California. Physical signs: Impaired movement of left chest. Slight dulness in supra-clavicular and supra-scapular regions on same side. Crepitant and sibilant râles extending to interscapular region. Blowing inspiration over remainder of lung. Right lung normal. There were also found two brown blotches, one on each leg over the tibial crests.

He was treated with hot poultices over the right shoulder for four weeks, with compressed and rarefied air, pulmonary gymnastics and nutritious foods until the thirteenth of the following January when he weighed 139¼ pounds, and at which time the abnormal physical signs had almost entirely disappeared. His chest movements were more full and his inflation better especially over the affected apex, and although not entirely well he was on a fair road to recovery. At this time he went home and continued to improve. On March 17, he shoveled some snow off the roof, and this was followed within a few hours by the expectoration of some dark-colored blood, and by fever and aching pains of the body. During this slight attack he lost a pound and a quarter in weight, and the brown patches on his shins increased in size. In June he weighed 140 pounds, and at this time he resumed his vocation. He worked very hard, soon began to have a return of the achiness over his whole body, especially his back and legs, which was followed by a rise of temperature and in three weeks he lost seven pounds in weight. On the 10th of September I saw him again, when he weighed 125 pounds, and at this time a physical examination showed quite a profusion of moist râles in apex of left lung, together with some subcrepitation at base of same side. Shortly after this he again went to Colorado, and on his return, May 17, 1889, he called on me again, when he weighed 135 pounds. He informed me that during the first two weeks of his stay in the mountains he had had a good deal of difficulty in breathing, and that he also became very drowsy and was able to sleep at almost any time and in almost any posture. His cough and expectoration remained about the same, but the spots on his shins diminished in size. His appetite was good, and his bowels regular. There was now dulness at base of left lung, anteriorly, laterally and posteriorly, and above this was a small area where a wavy respiration could be heard together with some friction sounds. The condition of the apex was very much as it had been at the previous examination. He placed himself once more under my care, because with all the gain in flesh he did not think his lung was as good as it should be. This view was also confirmed by the physical signs. Having become thoroughly persuaded concerning the practical importance of rest, from treating several other patients since I saw him last, I advised it and began to administer it at once. I did not compel him to go to bed, but ordered him to remain quietly in a sitting or lying position during the twenty-four hours. He rode out but walked very little. Internally I gave him phenacetin, quinia, potassium iodide, and oxygen with compressed air. From this time he improved in every respect. His cough and expectoration diminished, his appetite improved and he gained in flesh, while at the same time the physical signs changed for the better. In six weeks he gained nine pounds; his weight then being 144 pounds—four pounds more than he ever weighed in his life. I consider him practically well, although the dulness has not entirely vanished from the apex and base of the left lung.

This case more than ordinarily illustrates the value of rest in treating this disease. The trouble, according to the patient's own statement, began with hæmoptysis, which he brought on by playing base-ball, and the subsequent attack of blood-spitting was produced by shoveling snow, and if I had realized then as I do now the importance of keeping him quiet even after this setback, I do not believe he would have had the serious relapse which occurred the following summer. At this time he felt very well, and without any determined interference on my part he went to work, remained at it from early morning until late at night, and in less than two weeks he lost all and more than he had gained before. The same mistake was made here that is made so often in similar instances. It is a common experience that consumptives get along admirably so long as they lead a more or less inactive life; but in consonance with the prevailing belief that they must have physical exercise and fresh air in order to be fully

restored they are led to over-estimate their strength, go to the work which has waited for them so long, and often with the most serious consequences to themselves. A good rule to follow in such cases, I have since learned, is not to allow a patient to take much exercise even after he is considered well enough to undertake it, unless he becomes accustomed to it gradually.

An interesting feature in this case was the peculiar history of the brownish discolorations on his shin-bones. According to his account these dated from the beginning of the lung trouble. On several occasions I observed that the area of these spots moved in harmony with the state of the lung and with his general condition, *i. e.*, if he became worse the spots increased in size, and their centres seemed more dense and angry looking; while, if he improved, the spots became smaller and finally disappeared almost entirely. These oscillations undoubtedly show that there was some connection between these spots and the state of the chest—both probably depending on a still deeper lying, common basis, viz.: the general nutrition of the body.

Case II. T. Y., aged 34, a brick mason, was first seen June 21, 1888. He had been well until the previous January, when he had a chill which was followed by fever, cough, and an expectoration which was yellow in the morning. Spat blood about six weeks before he came for treatment. He was hoarse occasionally, had never had malaria, rheumatism, or specific infection. His appetite was poor, tongue coated, and he felt tired continually. He is the oldest of a family of eight children, three of whom died of infantile diseases, and two sisters died of consumption, aged 16 and 18 respectively. His father and mother are well. He had an evening temperature of 101°, and his weight was 143 pounds.

Physical signs. Slight dulness in left apex associated with crepitant and sibilant râles. Some moist râles distributed over his whole chest. He was treated with antifebrin, quinia, hypophosphites, poultices, pulmonary gymnastics and inhalations of compressed air, until the 31st of July, when both symptoms and physical signs had materially improved. His evening temperature was 99°, and he had gained one pound and a half. The poultices were discontinued. At this time he changed his boarding place, which compelled him to walk some distance four times a day to the place where he obtained his compressed air. He soon began to feel tired and languid, became restless at night, had a perceptible rise in temperature, a slight loss of flesh, and an impaired appetite. After this he was kept quiet and then made an almost uninterrupted recovery, and in seven months from the last date he weighed 160 pounds. He still maintains this weight and has been at work for four months.

Case III. H. T. was first seen Nov. 22, 1888, when he had had a cough and copious expectoration for a year; felt chilly; had night-sweats; a poor appetite, and a temperature of 101½° in the evening. His weight was 142 pounds. Physical signs: dulness, crepitation, and wavy respiration in upper half of left lung.

Internally he was ordered antifebrin, quinia, strychnia, and atropine, and externally a flax-seed meal poultice to left lung. He was kept quiet, and in a few days there was a perceptible improvement in his condition. His temperature declined to 99½° in two weeks; his appetite became good, and he gained in strength. During the first few weeks when he was poulticed he was kept on his back principally, afterwards he was allowed to sit up, but not to walk much. The following 10th of January he weighed 157 pounds; the physical signs had disappeared, and he felt well and has been working ever since.

Case IV. S. J., aged 22, was first seen May 4, 1889, when he gave a history of cough and expectoration for several years. He had several attacks of hæmoptysis, also chills, fever and night-sweats; his appetite was poor, and his temperature in the evening was 104°; his weight being 127 pounds. Physical examination showed a good-sized excavation with consolidation around it in the upper portion of right lung, together with crepitation in same region; mucous râles were discernible on opposite side. He was placed at rest immediately, given phenacetin internally in four-grain doses every four hours, and a poultice was applied to the chest. He had been taking cod-liver oil and this was continued. At first he did not do well. His rigors became very pronounced and his temperature fluctuated from 104° one day to 96° the next. Phenacetin even in ten-grain doses did not fully control these variations. It was exchanged for antipyrin in seven-and-a-half-grain doses every four hours with the most desirable results. In three weeks his temperature became more

stable and has remained at about 99° ever since, with the exception of a few days when he neglected to take his medicine, it rose to 100°. He has gained in appetite, strength and flesh until now he weighs 136 pounds, and would be willing to take active exercise if I gave him permission.

I think these cases, which are extracted from my private record-book, illustrate very emphatically what rest combined with other appropriate treatment is capable of accomplishing in this disease. Of course, such highly favorable results are not to be expected in every instance, for I could relate the record of cases which terminated disastrously, yet I am certain that the examples here given represent the results which can be gotten in the great majority of consumptives which present themselves for treatment.

1829 Spruce street.

CREMATION.

WHAT IS THOUGHT OF IT BY PHYSICIANS.

INTERVIEWS WITH PHYSICIANS BY A REPRESENTATIVE OF THE MEDICAL AND SURGICAL REPORTER.

THIRD SERIES.—PHILADELPHIA.

DR. S. WEIR MITCHELL is decidedly in favor of cremation. He would desire the cremation of his own mortal remains, were it not in opposition to the wishes of his family. Although he has not given the subject much thought, Dr. Mitchell is of the opinion that incineration is unquestionably a superior method for the disposal of the dead than inhumation. Regarding the question of ground pollution, he is not willing to offer any opinion, not having given the subject any study whatever.

DR. W. W. KEEN expresses himself as entirely in accord with the introduction of cremation into this country. He thinks that the custom is gradually but steadily gaining ground; as indeed it should, since the arguments in its favor entirely overbalance anything that could be said against it. Hygienically its most bitter opposer cannot fail to see its superiority over inhumation. Esthetically, if rightly understood, there is nothing loathsome or disagreeable about the custom, but, to his mind, it is far more refined and beautiful than burying. Personally, Dr. Keen desires to be cremated. He expects and hopes that the practice will increase in favor in the United States, and may, ultimately, become universal.

DR. CLARA MARSHALL favors cremation both hygienically and sentimentally. She fully believes in ground pollution and opposes burials on the banks of the rivers, which furnish city water-supplies. She personally has no averse feeling towards cremation and would gladly assist in its promotion. Dr. Marshall thinks that many will oppose the custom for theological reasons.

DR. HARRISON ALLEN favors the promotion of cremation, especially from a sanitary point of view. Regarding the question of ground pollution, Pasteur has proved the contamination of the ground through the interment of dead bodies to be possible beyond all doubt. The introduction of cremation would be a great boon to the public health. He thinks, however, its adoption in this country will be a slow matter. It is next to impossible to change the customs or rituals of a people. This is especially the case with regard to the disposal of the dead. The Chinese go as far as to ship all their dead back to their native land for interment, and have numerous quaint superstitions that centuries have failed to remove. The Alaska Indians have also very strong feelings in this matter, and look upon desecration of the dead as a crime worthy of punishment by death. Similar feelings, although perhaps of less marked degree, based both upon sentimental and religious grounds, are naturally aroused within us when any change of rite or custom is urged. Personally Dr. Allen has no objection to cremation and is convinced of its great hygienic value.

DR. H. C. WOOD thinks the question one of but very little moment. Whether it be introduced or not, he says it does not amount to a row of pins. The custom is entirely a matter of individual taste. For his own part he has not the slightest interest in what became of his own body. Regarding ground pollution, he did not believe in it; and does not all mind drinking the filtrations of, or eating the products of the remains of his ancestors. He considers cremation an unnecessary procedure.

DR. D. HAYES AGNEW does not think that the time has yet come when cremation is necessary for the good of the public health.

At present the country is not so densely populated as not to leave ample room for interments at good distances outside of city limits; and this will be the case for a long time to come. Dr. Agnew deprecates burials near city water-supplies, such as in our Laurel Hill Cemetery, stating that these very probably lead to a contamination of the water. True, this proposition has been denied, it being claimed by some that all organic matter is filtered out by the ground and that only innoxious fluids reach the stream. This hypothesis has, however, by no means been proved; and our riverside burial places must still be regarded as possible sources of danger to the public health. City burials are without doubt most unsanitary; this is especially the case with pauper burials, where the graves are allowed to remain open until filled with bodies, or where the bodies are buried in trenches which are not filled in until full of coffins. Similarly burials in wet ground may be regarded as sources of ground pollution. Dr. Agnew considers the cremation of the remains of persons having died with infectious or contagious diseases both proper and necessary. Still, he urges, there is no longer any reason why infectious diseases should at all exist, since our knowledge of their origins and our understanding of sanitation and prophylaxis of disease has become so broadened. He would therefore rather look forward to the day when the introduction of cremation should no longer be necessary, on account of the extermination of infectious or contagious diseases, due to the strict enforcement of sanitary laws; rather than to contemplate the fact that, on account of poor sanitation and over-crowded burial grounds, cremation should have to be enforced for the sake of the public health. From a hygienic standpoint, there are other sanitary laws and regulations the strict compliance with which is, at present, more necessary than the introduction of cremation. Individually every one should have the right to provide for any desired disposition of his or her own remains. Esthetically Dr. Agnew sees nothing against cremation. On being questioned as to the disposition of his own body, Dr. Agnew at first expressed himself as entirely indifferent, but, after a moment's reflection said that he would rather be buried, confessing, however, that the wish was merely sentimental.

Dr. Samuel D. Risley favors cremation from a hygienic point of view; considering it superior to our present methods of disposal of the dead. City burials as well as inhumations on the banks of streams furnishing city water-supplies are, without doubt, unsanitary, and sources of danger to the public health. Still, he believes that the system of inhumation could be made to comply with all sanitary requirements, were the burial places removed well out of the city. In this country there is ample ground, and contiguous cemeteries are unnecessary. So long as this is the case the universal adoption of cremation is not called for. In speaking from sentiment, Dr. Risley confesses a certain aversion to cremation, due, undoubtedly, to early education and usage; yet should he have to choose between city burials and cremation, he should unhesitatingly decide in favor of the latter.

Dr. William Pepper expresses his opinion as follows:

"I am strongly in favor of cremation, and believe that in the future this mode of disposition of the organic portions of dead bodies will be generally adopted.

"Hygiene teaches clearly the danger of burying such bodies, laden with the germs of disease which will develop and multiply so long as any organic matter remains; and which may find their way by currents of water into springs or streams used for drinking purposes.

"Sentiment revolts at the contemplation of such slow, grewsome processes, or at the employment of rapidly destructive agents like quick lime, as much as it does at the thought of subjecting the bodies of our loved ones to the action of fire, the supreme purifier, which will drive off, in harmless form, the organic portions, and enable us to retain in a permanent and unobjectionable state their ashes."

—There are 21 Universities in Italy, 17 royal and 4 provincial. The former are arranged in two classes, 10 belonging to the first and 11 to the second. The Universities are very unequally distributed throughout the kingdom, Sicily having 3, Sardinia 2, the States of the Church 7, while the Kingdom of Naples, Piedmont, and Venetia have only 1. The one most frequented is that of Naples, which has 3,900 students; then comes Turin with 2,100, Rome with 1,200, Bologna with 1,160, Padua and Pavia with 1,000 each, and Palermo with 950.

PERISCOPE.

Typhus.

Professor Hlava has published in a Bohemian medical journal, an account of a severe typhus epidemic which raged in Prague last year. Altogether about 400 cases occurred, of which forty-five proved fatal. Professor Hlava was able to make observations on the blood of most of these. He found in many of them a special microbe, which he regards as a streptococcus, existing in the blood; and the same microbe was found in two instances in the blood of patients during life, but it was never detected in the intestines. When cultures of this micro-organism were injected into rabbits they became feverish, but the affection was evidently of a totally different character than typhus fever in the human subject. It is therefore not possible to say whether or not this streptococcus is the cause of typhus. Regarding the way in which infection is transmitted, Professor Hlava is disposed to think that it is not through the air or by means of water that the disease spreads, but rather by direct contact.—*Lancet*, Dec. 7, 1889.

Uterine Cancer in Monkeys.

At the meeting of the Pathological Society of London, held Dec. 3, Messrs. Bland, Sutton, and Gordon Brodie made the following communication. For some time past they had been accumulating material for an investigation of cancer, especially in connection with the uterus. It appeared that uterine cancer, though so very common in the human female, was rarely met with in other mammals, and was hardly known to veterinary surgeons. This induced them to commence the investigation by a study of the cervix uteri in monkeys, in order to ascertain if any anatomical conditions existed favoring the development of cancer in human females. A few years ago one of them exhibited before the Society a series of specimens demonstrating that monkeys (macaques and baboons) living in confinement in this country were liable to uterine flexions. Subsequently, evidence was given before the Gynecological Society that macaques and baboons menstruated after the same fashion as women. The inquiry was followed up, and it was found that the menstrual period in these monkeys was very variable. In some it lasted a longer time than in others, whilst now and then a monkey appeared in an almost chronic state of menstruation. In many the menstrual period was followed by profuse leucorrhœa. Normally, the discharge of blood lasted from one to two days, but the redness of the less hairy parts persisted as long as a week. The average interval between each menstrual period was difficult to fix with accuracy, as it varied from a month to six weeks, or even longer; it was a safe inference, when a monkey menstruated two, three, or even four times a month, each attack lasting three or more days, followed by leucorrhœa, that the case was one of metrorrhagia. During the past summer a macaque was particularly watched; the metrorrhagia and leucorrhœa became so profuse as to render it unfit for exhibition, and, being of small money value, it was killed. The uterus was removed before the parts had lost their tissue life, and was found to be acutely retroflexed; the cervix enlarged, the os patulous, and a florid-looking mass projected from it, identical in appearance with what in gynecology is called an erosion. After hardening the parts sections were prepared for the microscope in such a way as to include the os externum, the cervical canal, and portio vaginalis. Under a low power the mass protruding from the os, as well as a polypoid mass some distance up the canal, resembled a cervical adenoma, and in structure identical with the glandular tissue held to be characteristic of erosions in women, the acini being apparently lined by columnar epithelium. Many of the most typical acini were filled with a singular, apparently homogeneous material. Under higher powers and careful illumination the supposed columnar cells were seen to be club-shaped, and in favorable sections the supposed glandular crypts turned out to be rosettes fringed with the clubs so characteristic of actinomyces. The clubs varied somewhat in shape, many of them fringing the rosettes with the greatest regularity. In other places they occurred in "banana-like bunches," especially when stained with fuchsin. The clubs surrounding the rosettes stained with difficulty. In some places a cluster of clubs had been cut transversely; in such, a characteristic mosaic was produced. They could not detect the filaments, but this was probably due to their lack of skill in staining methods, but a number of granular bodies presented themselves in vari-

ous parts of the section. Thus far the microscopic characters were consonant with actinomycosis. On examining the centre of the rosettes some distinctly rounded bodies caught the eye associated with clumps of epithelioid-looking cells; when these central bodies were critically examined they resolved into cysticerci, with the head and neck retracted. Whether their presence in the midst of the rosettes was accidental or otherwise would require further elucidation; as far as they had examined the sections, the cysticerci appeared to have some causative relation to the rosettes. Although Messrs. Sutton and Brodie wished at first to limit this preliminary statement to facts connected with monkeys, they could not refrain from observing that they had detected so far as the rosettes and clubs were concerned exactly analogous conditions in erosions from the human cervix uteri, and in a case of cancer of the cervix.—*Lancet*, Dec. 7, 1889.

Pruritus.

In the treatment of general cutaneous pruritus, Dr. Wertheimber, in the *Münchener Med. Wochenschrift*, Nov. 4, 1889, recommends a tablespoonful of a three per cent. solution of salicylate of soda, three times a day. This treatment will not only ameliorate the unpleasant symptoms of pruritus, but is said to completely eradicate the disease in a short time.

Creasote in Pulmonary Gangrene.

In the Moscow bi-weekly *Meditzinskioë Obozrenië*, Nov. 10, 1889, Dr. Draitry L. Romanovsky, of Reval, writes that he has found creasote of excellent service in several cases of pulmonary gangrene, as well as in chronic putrid bronchitis, and in putrid complications arising sometimes in the course of pulmonary tuberculosis. He administers the remedy usually after the following formula:

℞ Creasoti . . . . . f℥ss
Tincturæ gentianæ . . . . . f℥j
Spirit. vini (95°) . . . . . f℥ij
Vini Xerici . . . . . f℥vj
M.—D. S. From three to five tablespoonfuls a day, with milk.

He gives in detail a case of pulmonary gangrene (sequel to an attack of croupous pneumonia), cured by the remedy in 55 days. The patient's sputa lost its offensive odor on the eighth day of treatment and became simply purulent on the thirteenth day, his general state and the condition of the lungs steadily improving almost from the very beginning of the treatment. On the twenty-eighth day the mixture was discontinued. In six days, however, a relapse followed. The treatment having been resumed, all symptoms again improved in a few days.

Bloodless Treatment of Fistulæ.

In the Moscow therapeutic weekly *Novosti Terapii*, No. 11, 1889, Dr. Gëorgy I. Tarabrin, of Ekaterinovka, warmly recommends the treatment of incomplete fistulæ (sinuses) by the intrafistulous injection of a two per cent. solution of carbolic acid or a solution of corrosive sublimate (from three to ten grains to six ounces of distilled water), repeated two or three times a day. The injection should be preceded by probing (in order to determine the direction which the jet should take). It is advisable to commence the treatment with a weak solution and then to gradually pass to stronger ones. The treatment is said to prove successful in a couple of weeks even in old cases of deep fistulæ penetrating into bone.

Cornutine.

Dr. Thomson, of Dorpat, recently made an extended study of the actions of cornutine, and has found that it is especially effective in atonic hemorrhage after child-birth. Unfortunately it is very unstable (in solution) and high in price. Dr. Thomson recommends the following formulæ:

1. Cornutine . . . . . ¾ grain.
Distilled Water . . . . . 150 min.
Hydrochloric Acid . . . 4 drops.

Dissolve. Keep in a dark (amber-colored) vial. Dose: 15 minims hypodermically.

2. Cornutine . . . . . 4 grains.
White Bole . . . . . 140 "
Glycerin and Water . . . . q. s.

Make 60 pills. Dose: 2 to 3 pills daily. —*American Druggist*, Dec., 1889.

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CHARLES W. DULLES, M.D.,
EDITOR AND PUBLISHER.

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NEVER ROLL A MANUSCRIPT! Try to get an envelope or wrapper which will fit it.
When it is desired to call our attention to something in a newspaper, mark the passage boldly with a colored pencil, and write on the wrapper "Marked copy." Unless this is done, newspapers are not looked at.
The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

IN MEMORY OF
JAMES H. HUTCHINSON, M. D.

It has been but a few days since Dr. James H. Hutchinson courteously gave to a representative of the MEDICAL AND SURGICAL REPORTER his views on the subject of Cremation, as published in the number for December 28, which was issued on the very day of his sudden death—December 27. So little did any of his professional brethren anticipate the closing of his honorable and honored career as a man and as a practitioner of medicine. We publish in another part of this issue a brief sketch of his life, but here we pay our own tribute to the worth of a character which we believe may well serve as a model for those who strive to attain success by strict integrity, by unflinching devotion to truth, by patient and persevering labor in the field of work to which Providence has called them. Those who knew Dr. Hutchinson best know best how thoroughly he was attached to the principles which make fine character in any calling, and which contribute most to keeping the medical profession from the deterioration to which the sharp competition of the present day is continually pressing it. He was a man who would not seek his own advancement at the expense of any of his brethren, nor permit the legitimate endeavor to secure the good opinion of his fellow-men to degenerate into a selfish struggle to push ahead of his fellow-practitioners. His character was marked by a most attractive modesty, by due respect for his equals and consideration for his juniors, and by a kindly charity for those with whom he differed on important questions. He was a warm friend, an upright and sagacious counselor, and a thoroughly honorable man.

Such men are doubly useful—useful in what they do, and useful in what they prompt others to do; and it is a comfort to believe that when they are withdrawn from the former field of usefulness, their influence in the latter continues and expands with the development of every man on whom their example has impressed the stamp of devotion to "whatsoever things are true, whatsoever things are honest, whatsoever things are just, whatsoever things are of good report."

TREATMENT OF MEASLES.

What is demanded in the treatment of measles is not a certain number of medicines, appropriate for meeting the indications of the average case, but a just conception of the course of the disease, of the symptoms which indicate danger, and of the complications and sequelæ to which the patient is liable. The physician should also know the best methods of preventing and of overcoming the sequelæ.

A mild case of measles, in a reasonably

healthy child, will probably end in recovery without any medicine, if the child is kept in a warm room free from draughts, and has its chest well protected. This fact, however, does not justify the physician in declining to administer medicine; for the little patient can be made much more comfortable by remedies directed to relieve the irritating conditions induced by the fever. If the cough is troublesome, it may be allayed by a suitable sedative; if there is headache with much restlessness, acetanelide in small doses will prove an acceptable calmative. If the skin is hot and dry, citrate of potash with lemon juice and syrup may be given as a febrifuge. Such remedies serve the double purpose of relieving the patient and of convincing the family that the sufferer is not neglected.

The sooner a physician is consulted in a case of measles the better. He should explain to the parents at the outset that the greatest danger which threatens the patient is the occurrence of respiratory troubles, which are most likely to develop shortly after, or just as, the eruption disappears. They are therefore early sequels. They should be guarded against by extreme care from the very beginning of the disease. The child should be put to bed in a part of the room in which he will be least exposed to draughts. A warm close room is better than a large airy one, with abundant ventilation; for the duration of measles is not protracted, and there is more to be feared from currents of air than from impure air. The patient should not be placed near a door or a window, if this can possibly be avoided. When it cannot, some protection against draughts will be afforded by screens suitably adjusted about the bed. The chest of the child should be protected by a good warm undershirt, or, what is better, a cotton jacket made by quilting raw cotton inside an undershirt.

The respiratory troubles most likely to occur are acute non-membranous laryngitis, bronchitis, and catarrhal pneumonia. A varying amount of bronchitis is normally present throughout an attack of measles, but the cough should abate with the subsidence of the fever and the disappearance of the eruption. If at the latter period the respiration should become accelerated, the temperature rise, and especially if there should be some blueness around the finger or toe nails, the greatest apprehension may be warranted. These symptoms indicate that pneumonia is developing. The occurrence of blueness is evidence that oxygenation of the blood is defective, and is of the gravest omen. The aspect of the patient when the blueness has spread to the face and other parts of the body has given the name "black measles" to this severe form of the disease. As every one knows, black measles is extremely fatal. Sometimes the cyanosis which characterizes it develops so soon after the appearance of the eruption that it is difficult to decide, especially if the eruption has not been very distinct, whether the pneumonia is a complication or a sequel; but it is probably the latter.

The treatment of the pneumonia following measles is the same in principle as that of any other catarrhal pneumonia; but the affection is more fatal, requires more skill and judgment in its management, and freer stimulation than an ordinary pneumonia. A larger supply of fresh air is now required by the patient. If he is surrounded by skilled and faithful attendants, the cotton jacket may be discarded for poultices of ground flaxseed and mustard, the proportion of the latter being regulated by the age of the patient. These poultices should be large enough to cover both sides of the chest, back and front. They should be hot, not too thick, and be covered on the inner surface with a thin layer of olive oil or lard oil, so that they can be used very hot without danger of blistering. The poultices will require changing about every three hours; when properly used they are better than the cotton jacket in the early stages of the pneumonia. To get the desired results from

them, however, skill, deftness, and fidelity to directions are required. When not made and applied properly, they are useless for good, and may become an element of danger by inspiring a confidence in their efficacy which is groundless, and by exposing the patient to chill when they are changed.

For these reasons, in all ordinary cases, the cotton jacket is preferable. Its protective power, however, requires to be increased by a covering of oil silk, and counter irritation to the chest should be obtained by daily applications of tincture of iodine. When a considerable area of one lung is consolidated, resolution can be promoted by the use of a fly blister. Such a procedure is contrary to the advice of many writers, but it is productive of the greatest benefit in certain desperate cases in which it is of vital importance to secure resolution promptly. Unfortunately, in some of these cases, the consolidated area in one lung clears up, but another develops in the opposite lung. When both lungs are affected seriously, and there is general bronchitis of the medium-sized and smaller tubes, turpentine stupes are better than either iodine or a blister. Feeding should be with liquid foods, given in small quantities frequently.

The medicines which are most serviceable in pneumonia, following measles, are the preparations of ammonia, especially the carbonate, whiskey and brandy, digitalis, strychnine, and oil of turpentine. Each should be given singly, or combined, in doses sufficient to produce the desired effect. Regarding digitalis, it may be worth noting that it acts best when given in small doses at frequent intervals. Strychnine is indicated especially in the later stages of grave cases, in which the heart and the respiratory muscles show signs of failure; and turpentine when a typhoid condition exists.

High temperature will demand attention in a small proportion of cases of pneumonia. Antipyretic medicines should be avoided, and reliance placed on sponging, except over the chest, with cold or iced water. Sleep is very important, but it requires great nicety of judgment to decide whether sedatives are likely to do more harm than good, by favoring the outpouring of secretion into the bronchial tubes.

Under the treatment thus outlined, many patients will be conducted safely through the most frequent and the greatest danger which threatens a person suffering from measles. It is not forgotten that other inflammations—for the most part of mucous membranes—occur; they cannot, however, be considered in the present Editorial. We have tried merely to outline a prudent treatment for an ordinary mild case of measles, and for one of the severest that can tax the skill and ingenuity of the physician.

CONSISTENT HOMŒOPATHY.

A struggle for consistency in the ranks of the so-called school of homœopathy, which must enlist the sympathy of all who regard consistency as a virtue, is going on at the same time in Philadelphia and New York. In this city several physicians connected with the homœopathic hospital have resigned within the past few months, because—as they assert—they cannot yield even a tacit approval to practices there which are not in accordance with the homœopathic standards. In New York a contest is going on between the New York County Homœopathic Society and the Medical Board of the Ward's Island Hospital. By an overwhelming vote the Society has petitioned for the reorganization of the Board—sixty-three to six. The petition asks the reorganization of the Medical Board of the hospital, and the Homœopathic Society is very earnest in its determination to oust all members of the Board who hold doctrines which homœopathists deem heterodox.

Whatever effect this movement, and the sentiment in other places, may have upon the standing of homœopathy as a general method of practice, there can be no ques-

tion that it is in the interest of truth and honesty, and so deserves the approval of right-minded men.

MUTUAL AID SOCIETY FOR NURSES.

At a meeting of the Directory of Nurses, held in the College of Physicians of Philadelphia, Dec. 17, officers were elected for a society intended to protect and give sick benefits to all trained and registered nurses who are members of the organization. At the meeting held last week there were one hundred and twenty names enrolled, and since that time twenty-five new names have been added to the list. There are between six and seven hundred trained nurses now registered at the College of Physicians, and it is hoped to soon have the greater number of these as active members of this new organization, so that the sick benefits may be increased accordingly.

The purpose of this organization is entirely commendable, and if it meets with the success it deserves, it cannot fail to advance the standing and best interests of nurses as a class, and to prove indirectly of great benefit to the community.

PHILADELPHIA HOSPITAL AFFAIRS.

The hope expressed in the last number of the REPORTER that we should not soon have to express disapproval where praise would be a more agreeable exercise has been disappointed. The Board of Charities and Correction of Philadelphia met December 30, and by a solid vote of those of its members who are supposed to be the creatures of the Mayor displaced nine members of the Medical Staff of the Hospital against whom no charge of unfitness could be brought, and put nine new men in their places. This action has brought upon the unworthy members of the Board the condemnation of every newspaper in Philadelphia which is deserving of respect, and we may leave them to the judgment of their fellow-citizens. But, as a representative of medical opinion, the REPORTER expresses its regret and disappointment that so many medical men of Philadelphia should not be ashamed to take places made vacant by the summary dismissal of professional brethren who have given years of faithful and efficient service to the Philadelphia Hospital, or to get what advantage they can from a disgraceful political manœuvre. Some of the names in the list of shame we are surprised to find in such company; but some are those of men who have not yet made such an impression on the medical profession as justifies any surprise at their present position.

"O tempora! O mores!"

BOOK REVIEWS.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the REPORTER.]

TRANSACTIONS OF THE MEDICAL SOCIETY OF NEW JERSEY, one hundred and twenty-third annual meeting, held at Asbury Park, June, 1889. 8vo, pp. 242. Newark, 1889.

The New Jersey Medical Society enjoys the distinction of being the oldest State Medical Society in this country. The present volume shows that its members have not fallen into mental decay with age. The President, Dr. H. Genet Taylor, of Camden, N. J., says in his address: "A weeding out of incompetent physicians can be best attained in our own State by the appointing in every County Society, and in our State Society, of a permanent committee to watch for every illegal practitioner locating in their jurisdiction; to examine the diplomas registered in the clerk's office, and if any were issued by doubtful colleges, to make inquiry about their standing, and to make a report to this society at least once a year." In Pennsylvania we have thought the best protection against both illegal and unqualified practitioners could be obtained most certainly by a State Board of Medical Examiners; but undoubtedly there is room for a difference of opinion. Dr. W. Updyke Selover, of Rahway, in an essay on the subject, expresses the opinion that intubation of the larynx has certain advantages over tracheotomy. Dr. H. M. Weeks, of Trenton, has an essay on "Some Recent Advancements in Pelvic Surgery;" Dr. J. G. Ryerson one on "Perityphlitis;" Dr. J. D. Osborne, of Newark, an essay on the antiplastic action of calomel, in which he urges the revival of its use for this purpose; while Dr. William Perry Watson, of Jersey City, contributes an interesting essay on "The Value of Creasote in Fifty Cases of Disease of the Air Passages." The rest of the volume is taken up with the Report of the Standing Committee, Obituaries, and Reports of the District Societies.

The value of the Transactions would be increased if there were more essays, and if the discussions upon them were published. In this connection it is a

pleasure to note that at the next annual meeting, which will be held at Schooley's Mountain, on the second Tuesday in June, the following interesting and important subjects will be brought up for discussion: "Does the Early Administration of the Salicylates in Acute Articular Rheumatism Prevent Heart Complications;" "Hydrophobia;" and "Is Diphtheria Primarily a Local or a Constitutional Disease?"

A CLINICAL ATLAS OF VENEREAL AND SKIN DISEASES. By Robert W. Taylor, A. M, M. D., Surgeon to Charity Hospital, New York; Late President of the American Dermatological Association, etc. Illustrated with 192 Figures and 48 colored Plates, etc. Parts VII, VIII. Philadelphia: Lea Brothers & Co., 1889. $2.50 per part.

Dr. Taylor's great work, as now completed, contains one hundred and ninety-two figures, many of them life-size, and representing the highest perfection of the chromo-lithographic art, while scattered throughout the text are a large number of engravings. Some of these illustrations are from the author's own collection, while for others the best atlases of the world have been drawn upon for typical pictures of different types of skin and venereal disease. As a whole the work is eminently successful. It is exceedingly handsome, and remarkably faithful to nature, while Dr. Taylor's reputation as a dermatologist, as well as syphilographer, insures a high value to the text of his book.

He is to be congratulated on the successful termination of this important undertaking; and the publishers on the magnificent shape in which they have brought it out.

TRANSACTIONS OF THE MEDICAL AND CHIRURGICAL FACULTY OF THE STATE OF MARYLAND. Ninety-first Annual Session, held at Baltimore, Md., April, 1889. 8vo, pp 264. Baltimore, 1889.

This volume contains the papers read before the Faculty, April 24–27, 1889. An abstract of the proceedings was published in the Reporter, May 18, 1889, so that an extended review of them now is unnecessary. Those, however, who were attracted by the references to the papers should obtain the present volume, which is unusually full of good matter and is well printed and firmly bound. The Transactions as a whole reflect great credit upon the Faculty and upon the Publication Committee.

A MANUAL OF OBSTETRICS. By A. F. A. King, A. M., M. D., Prof. of Obstetrics and Diseases of Women and Children, Medical Dept., Columbian University, etc. With one hundred and forty-one Illustrations. Fourth Edition. 12mo, pp. 431. Philadelphia: Lea Bros. & Co., 1889. Price, $2.50.

The fact that King's Manual of Obstetrics has passed through four editions in little more than seven years is ample evidence that it meets with popular favor. The reasons for this are not far to seek. The reader is fairly surprised at the amount of matter the book contains. Almost every subject in obstetrics is at least touched upon; the more important topics being fully treated. In general, the author's exposition of the subject is excellent, giving, as he does, generally accepted views. These features render the manual of especial value to the medical student, to read during attendance on lectures, and to use when preparing for examination. The practitioner also will find here modern views presented in concise form.

We observe with regret, however, that in some important chapters the present edition has not been sufficiently revised. In our knowledge of the Cæsarean section, and extra-uterine pregnancy, especially, great progress has been made in the last few years; but Dr. King has failed to set forth the recognized standards of the present time. This, we believe, is unfortunate in a book from which students will derive their "first impressions" concerning these subjects; because first impressions have the force of prejudices in later life. This is a defect which we hope to see corrected in the next edition.

Literary Notes.

—*The Ophthalmic Review* begins its new volume with an American editor, Dr. Edward Jackson, of Philadelphia, who succeeds Dr. James Anderson, of London. It will hereafter contain original articles from American as well as English ophthalmic surgeons; with notices of all ophthalmological papers published here or abroad, and full reviews of the more important of them. Those who are familiar with the thoroughness, conscientiousness and literary talent of the new editor will congratulate the *Review* on its acquisition.

New Remedies and Appliances.

In this department, notice will be given of Remedies, Food Articles, and Instruments or Surgical Appliances of which specimens are sent to the Editor; it will bear the same relation to these articles that the department of Book Reviews now does to books.

A New Inhaler.

Since Blumroder & Henle recommended so strongly the use of etheric inhalations in many diseases of the respiratory organs, numbers of inhalers have been devised. They all were considered imperfect, neither facilitating a deep inspiration, nor a sufficient collapse of the lungs during expiration, and they didn't prevent contact of the expelled expired gas with the medicine in the inhaler.

R. B. Segnitz, of New York, has attempted to overcome this difficulty by designing an instrument, consisting of a tube provided with a bell-shaped mouth-piece, with medicine chamber at lower end which is easily removable and contains a small piece of sponge. The tube contains a small ball valve, made of cork, intended to open on inspiration and to close on expiration. The expired gas is intended to escape by opening a flute valve in the middle of the tube.

The design of Dr. Segnitz's instrument is ingenious, but it has two defects which it would not be very hard to remedy: one is, that the ball valve does not act perfectly, and the other that the flute valve opening is much too small.

Glycerine Suppositories.

Eli Lilly & Co. have sent us specimens of glycerine suppositories which are superior to any preparations of the kind which have come to our notice. They are elliptical in shape and covered with a thin waxy coating, which is very easy to remove and which forms the best protection against combination of the glycerine with moisture in the air and the resulting stickiness.

Notes and Comments.

The Phonograph in Otology.

Dr. Lichtwitz, in the *Wiener Med. Presse*, Nov. 17, 1889, proposes an interesting use for the phonograph in aural examination. We have in ophthalmology fixed scales by which the range of vision may be accurately measured; there exist, however, no similar methods by which the intensity of hearing may be determined upon. With the aid of the phonograph Dr. Lichtwitz proposes to establish a fixed scale of phonograms, of varying intensity, and graded similarly to the optometric scale. These phonograms may be tried in succession, by the aid of the hearing tube of the phonograph, similarly as one would adapt glasses when testing the vision; and thus the patient's range of hearing can be accurately determined.

By this method it will be possible for otologists to reach a universal understanding regarding this most important point in aural examination.

Cancer of the Bladder.

At the meeting of the Pathological Society of London, held Dec. 3, Mr. Hurry Fenwick brought forward specimens of cancer of the bladder, to illustrate some unusual phases of that disease. The first one demonstrated the frightful rapidity which was sometimes exhibited by vesical carcinoma. The growth, which occupied the entire middle zone of the bladder, had been proved by means of the electric cystoscope to have grown in four weeks. The patient had been previously operated upon by the suprapubic method, and a single pedunculated carcinomatous growth had been completely removed.—*Lancet*, Dec. 7, 1889.

A Leper in Court.

Something of a panic was created recently in a St. Louis court, when a leper was produced on a writ of habeas corpus. The writ was directed against the city officials, who were directed to bring the leper from quarantine in order to demonstrate to the court that the man was really a leper, and was not being unlawfully restrained of his liberty. The Judge took one glance at the man, and was immediately convinced that he was a genuine leper, and ordered him back to quarantine, after which the court was adjourned to give the janitor a chance to fumigate and air the place.

A Modern Milk-Woman.

A woman in New Hampshire has undertaken a milk farm, not merely to give the usual canned or glass supply for exacting customers, but to furnish also sterilized milk. This farm is in the pine region of New Hampshire, and the herd has a physician. The milk is sterilized and hermetically sealed in six-ounce bottles, which is a sufficient quantity for a child to take at one feeding. The heat of the water-bath, which is used to destroy any possible disease or fermentation germs in the milk, is applied as immediately as possible after the milk is drawn from the cow.

Notification of Infectious Diseases.

The *Lancet*, commenting on the passage of the English infectious disease notification bill, says, "One thing is remarkable in this legislation,—the slight resistance which politicians of advanced views have been able to offer to its fundamental principle; viz., the right of the community to insist on knowing the affairs of individuals and families where these are likely to involve in any degree the health of others: in other words, the subordination of the individual to the community. This is, of course, the fundamental principle of society, but it is ever undergoing fresh development. National education, vaccination, isolation, and notification of disease, are all illustrations of the same principle. We have ourselves no hesitation in accepting the principle that individual liberty must give way where such doubtful advantages as the freedom to have small-pox and scarlet-fever are the only badges of

liberty; and it will involve no misfortune to the world if many other rights claimed by well-meaning but discordant individuals are curtailed in the interests of society."

Storing Food in Inhabited Rooms.

A writer in the *Gazette Médicale de l' Algérie* calls the attention of hygienists to the danger of eating butter impregnated with dangerous miasmata. Frequently the butter is kept in inhabited rooms, and sometimes even in rooms occupied by sick persons. Milk also is often kept in the same manner. The result is a contamination by morbific germs. Care should therefore be taken to obviate these grave risks to the public health.—*Lancet*, Dec. 7, 1889.

Ward's Island Hospital.

The Homœopathic Society of the County of New York is fermenting and excited. The cause of this ferment is the Medical Board of the Ward's Island Hospital. The Society has petitioned the proper authorities to dissolve the present Board, in which, it is asserted, there are four or five members who do not profess fealty to the Homœopathic School, and appoint a new one from a designated list of members of the Society. The Commissioners of Charities and Correction, to whom this petition was addressed, have sent to the secretary of the Society for a list of all its members, and for the names of those who voted for and against the resolution petitioning for the dissolution of the Hospital Board and the deposition of its president and secretary. When this information is received it will be placed before Dr. Guernsey, President of the Board, for answer.

Salicylic Acid in Soft Chancres and Syphilitic Condylomata.

In the St. Petersburg weekly *Voënno-Sanitarnoïe Dělo*, No. 21, 1889, p. 263, Dr. Leopold K. Golistewski, of Potï, draws attention to the abortive treatment of soft chancres according to Hebra's method, consisting in powdering the chancres with pure salicylic acid daily. Two or three applications (after previously cleansing and drying the ulcer) are said to be sufficient for transforming the chancre into a simple ulcer, which heals kindly in two or three days. In a case adduced by the author, which had remained without any treatment for fifteen days, a complete cicatrization ensued about nine days after the first powdering. The method seems to be equally successful in syphilitic condylomata, as is illustrated by a case of Dr. Golistewski in which multiple perineal warts (resisting the influence of calomel, mercurial inunctions, etc.) disappeared tracelessly in a week, after five applications of the acid. The same may be said in regard to suppurating buboes.

Antiseptic Treatment of Puerperal Eclampsia.

Dr. Maurice Rivière, of Bordeaux, speaks highly of the results obtainable by the antiseptic treatment of puerperal eclampsia. He outlines his method of treatment in the *Gazette hebdomadaire*, Nov. 22, 1889, as follows:

I. Preventive Treatment.—First, a strict milk diet should be enforced and one of the following capsules given every two hours:

℞ Naphthol . . . . . gr. xxxviij
Sacchar,
Bismuthi salicyl. . . . . āā gr. xxxj

M. et div. in caps. No. viij.

Second, every third or fourth day saline aperient or a dessertspoonful of sulphate of soda in a wineglassful of water should be given. Third, the functions of the skin and kidneys should be stimulated by hot baths given twice a week.

II. Curative Treatment.—First, absolute quiet and repose of the patient should be insisted upon. Second, ten to fourteen fluid ounces of blood should be taken from the patient in order to reduce the quantity of poison in the system. Third, the following potion should be administered:

℞ Aquæ dest.,
Syrup. pruni. Virginianæ . . . . āā f℥ij
Chloral. hydrasis,
Sodii bromid . . . . . āā ℥ss–℥j

Fourth, clysters containing half to one drachm of chloral may be administered and chloroform anæsthesia resorted to if necessary. Fifth, Dr. Rivière urges that any

forcible attempt to expedite the birth of the fetus, during labor, should be avoided, since such procedures only irritate the cervix and are likely to do harm. After the birth of the fetus blood-letting is useless, and any possible good that would have been obtainable by it, has been accomplished by the physiological hemorrhage.

Hypnotic Suggestion in Hysterical Paralysis; Hypnoscope.

In the St. Petersburg semi-weekly *Meditzina*, Dr. M. V. Pogorelsky, of Elisavetgrad, details a striking case of a hospital nurse, 23 years old, with hysterical paralysis of all the limbs, body and bladder, which was cured by ten sittings of hypnotic suggestion (during the course of 24 days), after all ordinary means (electricity, oxygen inhalations, strychnia, steel, etc.), had utterly failed to bring any relief. A great improvement, viz., return of movement in the upper limbs, and, to a slighter degree, in the legs, was obtained even after the very first *séance*, which fact, by the way, enabled the author to at once settle the differential diagnosis, since some of his colleagues had regarded the case as one of post-diphtheritic paralysis. The same author recommends a simple hypnoscopic test. As is known, out of every 100 persons only 40 can be brought into a hypnotic state (that is, they are "mediums"), while the remaining 60 cannot be hypnotized by any procedure in vogue (Obersteiner). In view of this fact, many attempts have been made, in striving to discover some means by which one may make an easy and rapid differentiation between a medium and a non-medium. Diagnostic appliances of the kind, or "hypnoscopes," were proposed, for instance, by Gessmann, Marcy, Ochorowict, etc. Starting from Ochorowict's principle, Dr. Pogorelsky suggests the following test, which gave satisfactory results in several scores of cases experimented upon by himself. He takes an ordinary middle-sized horse-shoe magnet, and, while holding it vertically, orders the patient to place his or her forefinger in the outlet in such a manner that the ball should look downwards and the lateral aspects of the phalanx come to rest lightly on the respective inner surfaces of the branches. The patient's forearm and hand should be placed on a table and remain motionless. Be the person experimented upon a medium, he or she, very soon (in from one to seven minutes) commences to experience peculiar sensations about the finger—such as pricking, twitching, pressure, numbness, cutting pain, etc.,—which not unfrequently spread to the palm, other fingers, and even sometimes up the forearm, arm, and down the whole corresponding side of the body (including the thigh), and ultimately may involve the opposite hand, etc. No phenomena of this kind are induced by the magnet in the case of non-mediums.

Hyderabad Chloroform Commission.

The following telegram from Dr. Lauder Brunton appears in the *Lancet*, Dec. 7, 1889: "Four hundred and ninety dogs, horses, monkeys, goats, cats, and rabbits used. One hundred and twenty with manometer. All records photographed. Numerous observations on every individual animal. Results most instructive. Danger from chloroform is asphyxia or overdose; none whatever heart direct." These results apparently indicate such a complete reversal of the view held by Dr. Lauder Brunton at the time he left England—that one of the dangers resulting from chloroform is death by stoppage of the heart—that the details of the experiments made by Dr. Brunton, and the reasons for the conclusion he has evidently arrived at, will be awaited with the greatest interest by the profession.

A Maniac's Brain.

The brain of the maniac-homicide, Daley, who killed J. G. C. Kennedy some years ago, and who committed suicide at St. Elizabeth's a few days since, has been examined. It was found to weigh fifty-nine and a quarter ounces. It was to all appearances in good order, and exhibited, macroscopically, no symptoms of disease or malformation.

Pseudo-Hydrophobia.

It is reported from New York, under date of Dec. 19, that a boy, 15 years old, died that morning at Bellevue Hospital, a victim to the fear of hydrophobia. He was bitten on the hand about two weeks before, and soon became overcome by the fear that he would have hydrophobia. The day before he died, while preparing to go to work, he suddenly began to stare wildly about him, to

shout and gesticulate, and soon he tried to throw himself from a window. His family caught hold of him, and a desperate struggle ensued. Two policemen were summoned, and it required the exercise of all their strength to bind and handcuff him. In this condition he was removed to Bellevue Hospital. Throughout the day the lad continued violent and made repeated attempts to bruise and injure himself by throwing himself on the floor.

Dr. Douglass, of the hospital, said that there had not been the slightest symptom of hydrophobia about the boy, but that the fear of that dreadful disease had without doubt unsettled his reason. His fear of hydrophobia had been greatly intensified by reading an account of the death of another boy.

Statistics of Leprosy in the United States.

In view of the general impression that Leprosy is spreading in this country, it is desirable, in the interest of the Public Health, to obtain accurate information upon this point. Dr. Prince A. Morrow, editor of the *Journal of Cutaneous and Genito-Urinary Diseases*, 66 West 40th Street, New York, is engaged in collecting statistics of all cases of Leprosy in the United States, and he asks members of the profession to aid in this work by sending to him a report of any case or cases under their observation, or coming within their knowledge.

Information is requested as to location, age, sex, and nationality of the patient, and the form of the disease—tubercular or anæsthetic; also any facts bearing upon the question of contagion and heredity.

NEWS.

—Dr. R. L. Moore has removed from Spring Valley, Minn., to Lincoln, Neb.

—The virulence of the outbreak of typhoid fever which recently raged in Dublin, was, by Dec. 1, abating. The type of the disease was mild, and the mortality has not been large.

—A graduate of the Jefferson Medical College was recently refused a license to practice in Minnesota because his studies had not covered "three courses of at least six months each," as required by the laws of that State.

—Dr. Bramann, first assistant in Professor von Bergmann's clinic at Berlin, who performed tracheotomy on the late Emperor Frederick the Third, has declined to accept a "call" to Greifswald as Extraordinary Professor of Surgery.

—According to a lay exchange, Dr. R. S. Huidekoper, until recently connected with the Veterinary Department of the University of Pennsylvania, has been offered a position in the Harvard College Veterinary Annex, but has not yet abandoned his thought of starting a school of his own.

—Leo Lesquereux, the Nestor of botanists in the United States and a well-known student of paleontology, died recently at his home in Columbus, O., at the age of eighty-two. Lesquereux was born at Fleurier, near Neufchâtel, in 1806. He was educated in Neufchâtel, and later occupied chairs at several European educational institutions. At twenty-five he became totally deaf. In 1848 he came to this country, influenced to this step by Agassiz.

—Some alarm has been created by the discovery that a Long Island establishment has been making sausages out of horse-meat. There is, however, nothing poisonous or unnutritious in horse-meat. The only objection that can be made to this kind of food is that sound and healthy horses are too expensive to be eaten, hence it is to be assumed that the horse-meat of butchers' shops does not represent the noblest type of a noble animal.

—The Calcutta Public Health Society has reported strongly in favor of leper legislation, and urges that the provisions of the bill already drafted should be strengthened and extended so as to prohibit the employment of lepers in washing clothes, preparing food and similar occupations. Native opinion is, however, generally averse to legislation going beyond pauper lepers, on the ground that the contagious character of the disease is not sufficiently established.

—Statistics, recently published on the authority of the Sanitary Department of the Russian Ministry of the Interior, show that in 1887 the population of Russia was 110,482,627. During that year the births amounted to 4,884,447, and there were 3,288,838 deaths. The total number of persons who received medical assistance was 16,860,000, the number of medical practi-

tioners throughout the Empire being 17,459. In 1888 the number of doctors had risen to 18,334, and this did not include 698 women holding the diploma of Doctor of Medicine.

—The Boston *Record* estimates that over 2,000,000 quinine pills, weighing about a ton, have been consumed by the people of that city during the past ten days. It arrives at this conclusion after interviews with druggists and physicians, one wholesale drug firm alone reporting a sale of 50,000 pills on last Saturday. This is a larger quantity than Boston usually consumes in a whole year, and it gives about five pills to every man, woman and child in the city. It shows how strong a hold "la grippe" has taken on the locality. If other cities consume a proportional quantity of this drug during the prevalence of the influenza epidemic, a serious inroad on the supply of quinine will be made, and an advance in its price may be the result.

OBITUARY.

DR JAMES H. HUTCHINSON.

Dr. James H. Hutchinson died suddenly at his residence in Philadelphia, Dec. 27, 1889, of uremia. On Wednesday night he retired in good health, and on Thursday morning arose to take his bath. Some considerable time later he was found unconscious. Drs. Ashhurst and Sinkler were summoned, but medical skill failed to revive him, and he died without having uttered a word from the time he was stricken.

Dr. Hutchinson belonged to one of the oldest families in Philadelphia. He was born at Lisbon, Portugal, in 1834, when his father was U. S. Consul there. In early life he was sent to a boarding-school in New Haven, Conn. Later he returned to Philadelphia and entered the University of Pennsylvania, from which he was graduated in arts, and in medicine in 1858. He then served a term as resident physician of the Pennsylvania Hospital, after which he spent a year in Europe, visiting the hospitals in Paris and Vienna.

Upon his return to Philadelphia he took up the practice of his profession and became prominent in a number of professional, philanthropic and educational institutions. He was Vice-President and Honorary Librarian of the College of Physicians; was an influential Manager and Chairman of the Household Committee of the Pennsylvania Institution for the Instruction of the Blind; was a Trustee of the University of Pennsylvania, and took a deep interest in its progress. He was a Director of the Philadelphia Library, and was an attending physician at the Pennsylvania Hospital and the Children's Hospital. He was also a vestryman of St. James' Protestant Episcopal Church. He leaves a widow and five children.

A special meeting of the College of Physicians was held on Saturday afternoon, Dec. 28, to take action on the death of Dr. Hutchinson, and the following minute was unanimously adopted:

"The College of Physicians of Philadelphia has heard with profound regret of the death, after only a few hours' illness, of its Vice-President, Dr. James H. Hutchinson, and hereby records its profound sense of the loss—to human eyes irreparable—thus occasioned, not alone to its own body, but as well to the whole medical profession of the city and vicinity, and to the entire community.

"Still in the prime of life, with skill and knowledge broadened and confirmed by wide and ever-growing experience, Dr. Hutchinson shone prominent both as a faithful and trusted family physician, and as a consultant whose advice and assistance were largely sought for and highly prized by his fellow-practitioners, all of whom recognized both the value of his counsel and the uniform candor and conscientious honesty with which it was bestowed.

"A Fellow of this College for more than a quarter of a century, he served it in council and committee-room, with a zeal and fidelity which are amply witnessed by its transactions and by the records of its library, and which but met its just recognition in his unanimous election to the honorable office of Vice-President.

"A scholarly and accomplished writer; an able clinical teacher; a skilful and judicious practitioner, well exemplifying the highest and best type of the practical physician; a high-minded, honorable Christian gentleman, tried and true in all the various relations of an active, busy life—his death leaves a gap which can never be filled; a precious memory which will endure long after those who now grieve for him shall themselves have passed away forever."

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CLINICAL LECTURES.

ANEMIA—ACUTE PHTHISIS.[1]

BY THE LATE JAMES H. HUTCHINSON, M. D.,

PHYSICIAN TO THE PENNSYLVANIA HOSPITAL AND TO THE CHILDREN'S HOSPITAL.

Anemia.

Gentlemen: I bring before you to-day a young girl who has been in the hospital only a short time, and who is suffering from a condition similar to that presented by the last patient I showed you at my last clinic. When I first saw her a day or two ago, I was struck with the marked pallor of her complexion, which you can still see, though she is somewhat flushed from excitement in consequence of being brought into the clinic room. Her lips and tongue are also decolorized. The conjunctivæ are pearly white, and when she was first brought into the hospital there seemed to be some puffing of the eyelids. The history of the case is as follows: The patient, N. A., is 18 years old and single. She was admitted on the tenth of the month, supposed to be suffering from acute Bright's disease. Her mother died of phthisis, and her father is now suffering from paralysis. She has always been healthy, and her menstruation normal, but she has always been pale and anemic. Last Monday she was taken with a slight chill, having gotten her feet wet the day before. This was followed by some fever and cough with no expectoration. Her appetite is fair and her bowels regular. She complained of pain in the left side of her chest from the apex of the heart outward. Her respirations were 42, and she had a dry, hacking cough, which increased on exertion. An examination of her blood showed 2,700,000 red blood corpuscles to the cubic millimetre, and one white corpuscle to 350 red.

[1] Delivered at the Pennsylvania Hospital.

The examination of the urine was negative. The apex beat of her heart was diffused, but the cardiac area of dulness was not increased. There was a distinct systolic murmur heard at the base, and transmitted to the vessels of the neck. The heart's action was rapid, and it was difficult to isolate the sounds. The expansion of the lungs was fair, but there was impairment of the resonance at both bases posteriorly, with moist crackling râles. Above this there was a vesiculo-tympanitic note. There was some puffiness about the ankles, but this is now very much diminished, and at present there is but a slight degree of œdema. Her temperature was somewhat elevated, and was 101.2° shortly after admission. Since then it has ranged between 101° in the evening, and 99½° in the morning. She was placed upon digitalis and iron.

In examining the patient this morning we find a great deal of pallor of the surface; her face, mucous membranes and nails are pale. In examining further I find, in the first place, that the impulse of the heart is somewhat diffused, and that it has not the force we would expect to find in a healthy girl. It is increased in frequency also. On percussing these there is no marked increase in the area of percussion dulness; in other words, the heart has its normal dimensions. Over the pulmonary cartilage I hear a distinct systolic murmur. This may also be heard at the aortic cartilage, at the ensiform cartilage, and at the apex, but loudest here. It is not accompanied by any alterations in the dimensions of the heart, and this, together with the appearance of the patient, leads me to regard it as an anemic or hemic murmur, and not depending upon any alteration of the heart. A systolic murmur heard at the apex indicates an insufficiency of the mitral valve. A systolic murmur at the aortic cartilage indicates aortic stenosis, while a diastolic murmur indicates aortic insufficiency. Walshe says that an anemic murmur is never heard down as low as the apex, but occasionally I distinctly heard such murmurs at that point, and therefore cannot indorse this statement. I can also hear this murmur in the carotids, and with this the venous hum which is apt to be heard in cases of anemia. It is very intense here. To be best heard the patient should be in a sitting or erect posture, with her head turned slightly to the other side, and the stethoscope applied between the insertions of the sterno-cleido mastoid muscle. It is a loud purring sound, and is often heard not only here, but also in the femoral vein and at times over the torcular herophili. If I press too hard I obliterate the vein, and consequently I hear no murmur, or if, while listening, I press upon the course of the vein above I also cause the murmur to disappear. The fact that it is a continuous sound and not intermittent also indicates its venous origin. I will also show you now that the patient is sitting up that the percussion note at the base of the lungs is impaired. Listening here I hear broncho-vesicular respiration and some crackling râles indicating the presence of a slight pneumonic process.

We have made here the diagnosis of anemia, that is, if we can accept this as a diagnosis. Anemia is no more a disease than is dropsy or jaundice. We must go further to say on what the condition depends. Dropsy may arise from disease of the heart, of the liver, or of the kidneys, and so we must look further for the cause of the anemia. Anemia, as the name indicates, is a deficiency in the blood. There is usually no true diminution in the amount of the blood. The amount of blood may be the same, or very nearly the same, as in a healthy person, but it is watery, that is, there is a deficiency in the cellular elements. The red cells are ordinarily five million to the cubic millimetre, and the white cells one to five hundred red. In addition the blood contains some nucleated red cells, usually in early life, and hemotoblasts which, according to some, form the red corpuscles. In this case the red corpuscles are diminished by one-half, while the white cells are about normal in number.

Now what will produce this condition? There are various causes which may give rise to it. In the first place, it may depend upon a direct loss of blood, as from a hemorrhage. In this case there is a rapid absorption of liquid matter from the tissues and stomach, causing a watery condition of the blood. The solid parts of the blood are made up less quickly than the watery parts. Then the blood may become deficient from an indirect loss of blood, as in cases of long-continued suppuration, excessive diarrhœa, prolonged lactation, or exhausting diseases. Anemia may also arise from disease of the blood-making glands, as in lecocythemia; or it may come from cancerous diseases, or from deficiency in the amount of food. Depressing emotions may interfere with digestion and cause anemia,

as in some cases of anxiety or distress. In this case there is no history pointing to a loss of blood, no menorrhagia, no hematemesis, no prolonged suppuration, nor do we find any diseased condition of the organs engaged in blood-making—the spleen and liver are not enlarged; nor is there any disease of the heart or kidney. Now, if Bright's disease were present in this case, we could explain the patient's symptoms, for albuminuria is a drain upon the blood. The patient has not been exposed to malarial emanations, nor is there any reason to suspect any mineral poisoning, as that from lead or arsenic. The case is one, therefore, for further study.

In some cases we have a form of anemia known as chlorosis, an anemia dependent upon an imperfect performance of the menstrual functions, not arising from the loss of too much blood, but from an opposite condition. This is not present here. The patient's menstruation has been perfectly normal.

There is, moreover, in this case another condition which requires some attention. At the bases of both lungs the pulmonary resonance is somewhat deficient, the respiration is almost bronchial, and there are in addition some adventitious sounds, crackling sub-crepitant râles, both on inspiration and expiration, with some increase of vocal fremitus and resonance. This means there is a slight degree of pneumonia existing here. This will explain the quickened respiration, the rise of temperature, and the pain, but has no bearing upon the anemia.

In regard to the prognosis, I need not tell you that it is very favorable. In all cases of anemia unaccompanied with organic disease the prognosis is good. If the patient was the subject of phthisis or cancer, we could do nothing to restore her to health, but what shall we do in a case of this kind? In the first place the patient should be kept in bed because of her pneumonic condition, which is so slight as to call for no active treatment. Then the condition of her blood must be improved. Iron is the best remedy for the purpose, and we shall give her the tincture of chloride of iron in large doses, beginning with ten or fifteen drops three or four times daily, and increasing the dose if well borne. The larger the dose the larger the amount absorbed and the more rapidly will the red corpuscles increase in number. We have here certain other conditions which require attention. There is considerable excitement of the heart which is not an uncommon occurrence in anemia. The watery blood must do the same amount of work as the normal blood, and therefore there is an additional call upon the heart. Digitalis is consequently indicated in this condition, to quiet the excitement and to increase the cardiac power. Other remedies may take its place, such as the tincture of strophanthus, the fluid extract of convallaria, or the chloride of barium, but none are so satisfactory as digitalis. The diet should be nutritious; the patient should be guarded against constipation, and should be surrounded as far as possible with cheerful circumstances.

Acute Phthisis.

The next patient is one suffering from an interesting diseased condition. She was admitted on the ninth of the month, is colored and married. She gives no family history that can be relied upon. She was always delicate and particularly susceptible to colds. Two weeks ago she had a chill, which was followed by a high fever, but not attended with pain in the back or head. There was some diarrhœa, her appetite was poor and tongue coated. On admission, her temperature was $100\frac{2}{5}°$, her pulse small and rapid, and her respiration 28. She complained of feeling weak. Her urine contains albumin, but no casts. There was a systolic murmur over the base of the heart, transmitted to the arteries of the neck. There were moist crackling râles over the left apex and extending down to the nipple line. These were not marked posteriorly. The percussion note was high pitched and impaired. She was ordered whiskey three times a day, carbonate of ammonia every second hour, and Niemeyer's pill, but her condition steadily grew worse. Now numerous râles are heard upon the right side, also, and the sputum contains elastic tissue. She still coughs considerably, mostly in the morning. The left lung is almost completely involved in the destructive process, and the right one considerably so. The patient had been ill only a short time, and yet on examination we find marked evidence of disease. The murmur is still heard, loudest at the apex. This has no bearing upon the case. The urine is still albuminous. This also is not an active factor in the present condition. She has had a cold for some time, which she neglected, and probably in connection with this she had a pneu-

monia of the left apex, but the meagre history which it has been possible to obtain from her does not permit me to assert this positively. On admission we found on examination a decided diminution of the percussion note, increased vocal fremitus and resonance, and bronchial breathing in this apex. The right apex seemed almost free from disease. She has been in the house not yet a week, and yet all of the symptoms have increased ominously. Over the left apex we now have a high-pitched, somewhat tympanitic sound and at times the "cracked-pot" sound can be produced. With this there are coarse crackling râles, and when the patient coughs, actual gurgling. This is all indicative of a cavity containing liquid of some description. As she breathes I feel the râles in the chest. These can often, as in the present case, be felt as well as heard, in patients with thin chest walls. Upon the right side there is more resonance than upon the left. Posteriorly there is dulness on both sides, more marked upon the left. The temperature sheet shows a very decided increase in temperature. There is a marked fever. Shortly after admission her temperature was 104°. It has since then reached, on several occasions, 103°, and has never been down to 101°. So you see there is a considerable degree of pyrexia. The patient is suffering from phthisis, which probably commenced in an acute inflammation. In a week or two the case will have probably run its course. The prognosis is, therefore, very unfavorable.

In regard to treatment, it should be simply a sustaining one. Because of her extreme weakness we will continue the whiskey and carbonate of ammonia. In regard to the condition of her lung, Niemeyer's pill containing quinine, one grain, digitalis one-half grain, and extract of opium one-eighth grain, acts well, provoking sleep, and quieting the cough, and exerting generally a tonic influence. The amount of whiskey has been increased to six ounces, and the patient bears this well. In disease more stimulus can be taken without producing intoxication than in health, and it is possible that in a day or two it may be necessary to prescribe even a larger amount.

The *Deli Courant* states that search for petroleum along the banks of the Lepan River, in Langkat, in N therlands-India, has resulted in the discovery of that oil.

CASE OF SEPTIC INFECTION FOLLOWING ABORTION—ABDOMINAL TUMOR SIMULATING PREGNANCY—SEPTIC INFECTION IN THE NEW-BORN INFANT—POSSIBLE EXTRA-UTERINE PREGNANCY.[1]

BY BARTON C. HIRST,

PHYSICIAN TO PHILADELPHIA HOSPITAL.

Case of Septic Infection following Abortion.

Gentlemen: This patient, a young woman, is a case of septic infection following abortion. We will use her as a text for a few words on the treatment of septic infection after abortion and labor for, in both cases, it is the same. She presented the symptoms of general peritonitis due to septic causes; her abdomen was tympanitic and tender; her pulse rapid and feeble; her temperature 102°; and she had obstinate constipation. All clinical evidence pointed in this direction. She is a medico-legal case and hence has been under the surveillance of the officers of the law. It is claimed that injuries inflicted by her husband were the causes of her abortion and hence he is now held to await the results. Fortunately she has improved steadily and rapidly under treatment since her admission to the hospital, and is now on a fair way to recovery. Her treatment has consisted of poultices to the abdomen, turpentine stupes twice daily as a counter-irritant, with opium, quinine, and as much stimulus as her system and stomach would bear. The great disturbing element has been the irritability of the stomach. It is of the utmost importance to sustain such cases. Milk, peptonized and mixed with lime-water, was used, with the selection of sherry as the alcoholic stimulant. This treatment established some degree of tolerance. In the course of the case, another complicating factor arose which occasioned some anxiety; it was the excessive tympanitis and constipation. The tympanitis became so great that respiration was interfered with; and we even thought of puncturing the colon. For some time the constipation gave no cause for alarm; one would expect constipation from the opium, for it is given with the intention of abolishing peristaltic motion as a splint is

[1] Delivered Oct. 26 at the Philadelphia Hospital.

applied to the broken arm. However, constipation can reach a degree that may arouse suspicion that there is more than simple constipation, viz., that there must be a mechanical interference with the course of feces through the bowel. It occasionally happens that plastic lymph is thrown out in such a manner that it serves to tie together or to surround a single loop of the intestines as tightly as though it were bound with a string. We feared this from the obstinate nature of the constipation. The means used to relieve this condition were as follows: castor oil was first given and was promptly vomited; then sulphate of magnesia was administered, but shared the same fate. The hospital injection of soap-suds had no effect. Then soap-suds with turpentine were given and were retained within the bowel. Finally the resident physician gave an enema which I have always found efficacious in these cases; that is, a drachm and a half of glycerine. This was followed by a copious movement, the first in many days. This form of enema I have seen secure a movement, even where the intestine was constricted by adhesive bands; everything below the constriction coming away. After this one-half grain of calomel was given daily for several days. The tympanitis was relieved; a number of movements occurred and an uninterrupted recovery has followed.

You will hear the advice from many physicians to use the new plan of local depletion, by Epsom salts, in every case of peritonitis. Enthusiasts advise its use indiscriminately, discarding entirely the old treatment. You will find that in some forms of the trouble, brilliant results can be obtained; as in cases of beginning traumatic peritonitis in young, healthy, vigorous persons; in such individuals I believe salts will frequently abort the progress of the case, in twelve to sixteen hours. But in such a case as this, of well-established septic peritonitis, in a woman not at all vigorous, it might have the result of turning the scale against recovery. One point in the treatment not yet mentioned was the daily disinfection of the parturient tract. Every three hours, for the first two days, thymol was used without effect. The infection had taken place before the woman was admitted. It was not due to decomposition and ptomaine formation, but to the entrance of micro-organisms through the lymph-channels of the uterus to the peritoneal surface of the abdomen. Although we realized it was too late, we practiced it as a routine duty, changing afterwards to creolin, for we can never tell beforehand how far the process of infection has gone. Thymol is not a very reliable germicide, having but one-tenth the power of bichloride; still, in its effects it is never poisonous. But in creolin we have a germicide which is as powerful as the bichloride and yet as harmless as thymol.

Abdominal Tumor Simulating Pregnancy.

You will agree with me, as you view this woman's abdomen, that there is present every external evidence of pregnancy. In shape and size, it exactly simulates a uterus near term. The subjective symptoms also serve to bear out this idea, originated by inspection, that the woman is pregnant. This opinion is still further justified by the fact that pregnancy is the common source of abdominal tumors. It is the practicing physician's duty to believe that every case of abdominal tumor is due to the presence of a fetus in utero until he has discovered indubitable signs that it is something else. This woman may be pregnant, but, if so, she is not beyond the first few weeks. Her cervix is larger and softer than it should be, and there is the possibility that she is one or two months gone, but not advanced to the degree which her symptoms or appearance would indicate. Grasping the abdominal walls firmly between the fingers, we can see that their thickness is enormous, and the intestines can be plainly felt distended with gas. On palpation, there is no evidence of fetal back, limbs or head, and auscultation reveals no heart sounds; this is not absolutely positive evidence, however, for in unskillful hands or where there are tense walls, these fetal signs may be undetected. But on percussion, there is resonance over the abdomen in the area where the pregnant uterus always gives dulness. I say dulness "always," for except when the fetus has died and has become decomposed, distending the uterine cavity with gas (a very rare occurrence), the pregnant uterus gives a flat note on percussion over that portion of the abdominal cavity which it occupies.

Septic Infection in the New-Born Infant.

Septic infection in the new-born infant is due in the vast majority of cases to lack of antisepsis in dressing the cord. Our plan

here, which is as easy to perform as wrapping the cord in a piece of dirty linen, is to wash the cord in a bichloride solution 1 to 10,000, then to place it on a small pad of salicylated cotton, resting on the abdomen, covering it with another pad of the same cotton, and to apply the binder. The cord should not become discolored, but dry quickly and firmly and drop off early, leaving a healthy cicatrix. In this case, the cord dropped off in two days, showing the truth of the statement that with thorough antisepsis the cord comes away sooner than by the ordinary method. That septic infection of the newly born is far more common than the general practitioner would imagine, I am convinced. I have in the past year made *post-mortem* examinations of four such cases.

A Possible Case of Extra-Uterine Pregnancy.

Yesterday, I examined a case of abdominal tumor in the left broad ligament, apparently larger than a fist, which I thought might prove to be a case of extra-uterine pregnancy. Menstruation had ceased ten weeks ago, only to return the day before with a hemorrhagic discharge and expulsion of membrane, which we took to be decidua. On opening the abdomen, we found the tumor, not as large as it seemed, being about the size of a hen's egg. This is a common occurrence in this class of cases. A tumor felt through the vaginal vault gives an impression of larger size than it actually possesses. Bands of adhesion were thrown out on all sides; those to the pelvic bone could not be detached without great force and with danger to the ureter and the synoid flexure of the great blood vessels lying near. It is a mistake to persevere in a case where life is not threatened for the sake of brilliancy, so these adhesions were not broken up and the tumor was not removed. It is possible that my diagnosis of extra-uterine pregnancy was mistaken. I am quite positive that no one can make an absolutely certain diagnosis of this condition before operation. It may be that the case was one of intra-uterine pregnancy associated with a thick walled cyst of the broad ligament. This belief is strengthened by the discovery just made after a more careful examination of the discharges from the uterine body of a small piece of tissue, which presents the macroscopic appearance of chorionic villi. This of course would point to the existence of intra-uterine pregnancy. At any rate the tumor, whatever it is, should have been removed if possible, and therefore the operation was entirely justifiable.

COMMUNICATIONS.

FISTULA IN ANO: WITH A REPORT OF CASES OPERATED ON.[1]

BY BEN BRABSON CATES, M. D.,
KNOXVILLE, TENNESSEE.

A thorough knowledge of the anatomy of the human pelvis is not only a source of great comfort to the medical man, but for the surgeon it is indispensable to the successful treatment of diseases in this region.

The ano-rectal region is comparatively a small part of our economy, but when visited by disease the entire system hastens to sympathize with it. A little suppurating sore in this neighborhood—which, if situated in another part of the body would scarcely excite comment—will absolutely incapacitate a man from following the ordinary vocations of life. Within the last one-and-a-half years I have treated about twenty-five cases of disease of all kinds of the ano-rectal region. Of these, I have kept account of some eighteen cases, and of these eighteen cases over thirty-five per cent. were for fistula in ano.

All the patients were adult males. In two cases the fistula was complicated with hemorrhoids. Fistula seems to have occurred most frequently in those who had spent a good deal of their time on horseback. I find from an analysis of my cases that it occurs slightly oftener in those who pursue more luxuriant habits than in the daily laborer. It seems to have a marked predilection for the left side of ano-rectal region—the incomplete being in excess of the complete, and the external outnumbering the internal. Though I doubt not that, if the true history were known in these cases, that at some time during their course the majority commenced as internal fistula, the internal opening subsequently healing up.

The etiology of fistula, from the study of my cases, was traumatism, piles, dysentery and abscess. And I find, on consulting

[1] Read at the Knox County Medical Society, October 31, 1889.

different authors on the subject, that foreign bodies, such as hardened feces, fish-bones, grape seed, are fruitful sources of fistula in ano. Agnew mentions constipation, diarrhœa, phthisis and hepatic troubles, while Ashhurst enumerates cold, as "sitting on damp stones or wet grass," as a cause of fistula in ano. With these I have no experience.

The pathology of fistula is that of a tubular ulcer, which, in some cases is lined with healthy granulation, and if stimulated may heal kindly. Again it may be covered by flabby granulations, or, to borrow an expression from Kelsey, "the track is lined with lardaceous tissues, the result of chronic inflammation," or, again it may be lined by a thick pyogenic membrane of a leathery consistence, and a white shiny appearance. Systematic authors upon the subject, divide fistula in ano into the following classes: superficial and deep; complete and incomplete; external and internal. The track of a fistula may be straight or tortuous. It may be superficial from the external orifice to the margin of the sphincter and then passing up by the side of the bowel. Again, Kelsey mentions that the internal orifice does not in all cases mark the limit of the fistulous track. "This may run several inches up the bowel under the mucous membrane. Ashhurst says: There may be several sinuses opening externally, but all communicating with the same principal track; or there may be two or more independent fistulæ."

The symptoms are pain and tenderness, the escape of pus and gas, and in some cases the discharge of feces.

The diagnosis may be made by noting a papilla or small crop of granulations which may or may not be covered with pus at the external orifice. By placing one finger in the rectum and inserting a probe into the opening, the diagnosis can be confirmed beyond peradventure. It may happen—as in the case of a gentleman who consulted me for piles—that a patient is not cognizant of the existence of a fistula until he is told of it by his physician. In my case, on making an examination with the rectal speculum, I discovered a small opening in the bowel, and, on introducing a probe, I found that it led through a track which extended down to, but not through, the skin.

The treatment of fistula may be palliative, or radical. In the former we may use poultices and anodyne applications; in the latter, stimulating injections, such as tincture of iodine, or carbolic acid, or the application of silver nitrate and caustic potash. Again, a fistula may heal spontaneously upon the application of a very slight stimulus such as is furnished by the introduction of a probe. But the best remedies are the knife and the elastic ligature. The knife is preferable when the fistula is external to the internal sphincter and extends far out on the surface of the buttock; indeed, it may be laid down as a rule, in all fistulæ extending up rectum beyond two and one-half inches from the anus, that the elastic ligature is preferable on account of the profuse hemorrhage that may occur from incision and the difficulty of controlling it. Where fistulæ exist in great numbers, so as to completely riddle the bowel, a free division of the sinuses is likely to be followed by more or less incontinence.

Some surgeons recommend in such cases that the patient should have several sittings, rather than undergo a free division of all the fistulæ at one operation. It is always best to give a cathartic the night preceding the operation, and on the following morning to follow it up with an enema. Such a precaution will often prevent delay and save the surgeon much mortification. When the time for operation arrives the patient is to be etherized, and his buttocks brought to the edge of the bed. The surgeon then introduces a grooved director through the fistulous track. If this is incomplete, he makes a complete fistula, and bringing director out at the anus, divides all the tissues between the openings. If other sinuses remain, he lays them freely open. In internal blind fistula the surgeon introduces a probe into the track, cuts down upon it, and divides all the tissues as in the other variety. Where the fistula is high up, it is best to arm an eyed probe with an elastic ligature, carry this through the track, tie it tight, and let it ulcerate through. The routine treatment after division of fistula, whether by the knife or the ligature, is to wash out the wound thoroughly and pack it with lint, then place the patient in bed and keep bowels locked for five or six days; following this with a mild laxative, or what is better, with an enema. Ashhurst and other surgeons recommend in addition to the division of the tissues, wiping out surface of fistula with a solid stick of nitrate of silver or caustic potash. Agnew advises the free use of the curette. Mr.

Reeves freshens the edges of the wound and stitches them together. Each case, however, must be treated according to its own individual merit, and that procedure should be followed which the judgment of the surgeon dictates. This was done in the following cases:

Case I. Male; white; 36 years old; farmer. Had had piles for seven years. Had dysentery in May, 1888. In June of same year he consulted me regarding the hemorrhoids. On examination with a rectal speculum I discovered an internal blind fistula running back of the median line, about two inches from the opening of the anus. This fistula subsequently became complete. In July, assisted by my father, Dr. J. W. Cates, I operated, by splitting the fistula open, and packing it with lint; and allowed it to heal up from the bottom, which it did in about a fortnight.

Case II. Male; white; 30 years old; farmer. The patient had had an external blind fistula on the left side of the anus for several years. I operated last November, being assisted by my friend, Dr. J. H. Martin. Making a complete fistula, I slit up the tissues and stuffed the cavity with lint. I learned afterwards the patient was up walking about the house before I was out of sight. He absolutely refused to remain in bed, but recovered after several months, in spite of his indiscretion.

Case III. Male; white; 45 years old. Contracted piles in the army. For years he spent a great part of his time on horseback. Had been troubled with an external blind fistula for about ten years, which kept him from his work a great deal. In February of this year, again being assisted by my father, J. W. Cates, I operated, completing the fistula and splitting open the fistulous track, then, after wiping out its cavity with the solid stick of lunar caustic, I packed it with lint. This patient did not keep his bed very long, being called out by business, but fully recovered in about ten weeks.

Case IV. Male; white; 24 years old; painter. Had a blind external fistula on left side of buttock, two inches in depth, which had been troubling him for seven years. For the last few weeks before the operation he was unable to do a full day's work. On March 30, assisted by my friend, Dr. E. S. Rogers, I operated; dissecting out the pyogenic membrane. In introducing stitches I was careful to wash off surface of wound thoroughly before drawing each suture together. During the healing of the wound there was no suppuration, no coating of tongue, and at no time did the temperature rise above 98.5° F., nor was the pulse accelerated beyond seventy-five. On the sixth day after the operation, having given him an enema which secured a good movement of bowels, and having removed sutures, I dismissed him as cured.

Case V. Male; white; 20 years old. In the early part of last spring he came to me suffering from a cocygeal fistula, about three inches in length, and several small superficial fistulæ round verge of anus. Dr. C. Deaderick saw the case with me and we decided that a cutting operation was necessary. The patient left, deprecating an operation. I saw him after several weeks and he told me the fistulæ had all healed from the application of poultices. Here I doubt not that probing the wound stimulated the fistulæ to take on healthy action which resulted in a cure.

Case VI. Male; white; 29 years old; farmer. Nine years ago he had sustained an injury of the coccyx while riding horseback, which resulted in a fistula extending out on surface of left buttock for about three inches. From here an abscess cavity was formed, burrowing under the skin and subcutaneous tissues (spreading out like a fan), which covered a space as large as a man's hand and extended to the left gluteal fold. There were four small openings on surface of abscess about equidistant apart and indicated by small red papillæ or granulations. Periodically a very fetid pus would collect in the abscess cavity and discharge itself through one or the other openings. The skin over abscess was indurated, parchment-like, and thickened; the underlying tissues wore a dusky, angry hue, and could be distinctly seen through the overlying skin. The vitality of diseased tissues was below par. The patient's weight was reduced from one hundred and eighty-five to one hundred and forty pounds. On October 12, assisted by Drs. Jno. M. and S. B. Boyd, I split open the whole fistulous track, making an oblique incision about nine inches in length extending from tip of coccyx to gluteal fold, and crossing this with another about five inches in length, making an X-shaped scar. Having split open the abscess cavity, which was covered with flabby granulations, secreting a slimy ooze, or, to again quote Kelsey, having a lardaceous appearance, I curetted the entire surface of the wound

wherever pus had burrowed, removing about an ounce of granulations. The original fistulous track which was covered with a thick pyogenic membrane I dissected away. We then washed out the wound with bichloride of mercury solution, 1:5000; and, after packing cavity with lint soaked in the same solution, applied antiseptic dressings. On the fourth day the tissues contracted and left an enormous gaping wound. I introduced sutures to try to overcome this, but the vitality of the affected parts was so low, that the sutures ulcerated through the tissues as though they were paper. At no time has the temperature risen to 100° F., nor has the pulse run beyond 100. The wound has healed kindly and at present has become entirely skinned over, with the exception of the lower extremity, which, however, is fast developing into scar tissue.

THE AMERICAN ACADEMY OF MEDICINE—ITS OBJECTS, ITS OBSTACLES, WITH SOME SUGGESTIONS FOR AN INCREASE OF ITS EFFICIENCY.[1]

BY LEARTUS CONNOR, A. B., M. D.,
DETROIT, MICH.

In 1870 the Harvard Medical School raised its standard of preliminary requirement and proportionately its general curriculum. In brief, it began to teach modern medicine in a rational manner. President Eliot, in describing this change, says: "Until 1870 the students in the medical class of Harvard were noticeably inferior in bearing, in manners, and in discipline to the students in other departments; now they are indistinguishable from other students." He adds: "A corresponding change in the medical profession at large would be effected in twenty years if all the medical schools of the country would institute a reasonable examination for admission. Under the present order of things the American physician and surgeon may be, and often is, a coarse, uncultivated person, devoid of intellectual interests outside of his own calling, and quite unable to speak or write his mother tongue with clearness and accuracy." To set into operation agencies which will enable all medical students to rank with any other professional students in gentlemanly bearing, and supplant the coarse, ill-bred, ignorant physician by one who can comprehend the intellectual forces operating in the community about him, and who can meet on equal terms any individual who has become possessed with the intellectual training of his time, such is the mission of the Academy. If ever such a time comes, the degree of doctor of medicine will be an introduction and passport to any and every class in any community. Then, medical men will take rank among the leaders in all things pertaining to the best interests of the communities in which they live. Until then the physician's diploma avails for naught except as a license to practice medicine, in some States.

It is fitting for the members of the Academy of Medicine, from time to time, to look over the field in which we labor and to note the progress made in its cultivation, and the signs of promise for the future. Of these I note a few for our encouragement. In truth it must be said that the Academy is but one of numerous agencies, all striving toward the accomplishment of the same end by diverse routes. All of these we cordially welcome and wisely seek to increase in efficiency and to multiply.

It will be remembered that last year the College of Physicians and Surgeons of New York placed in active operation a preliminary examination of considerable severity. The result shows that its classes maintained a size entirely unexpected though gratifying to the friends of an increased preliminary education. In some other medical colleges the increase of preliminary requirement was attended by equally satisfactory results.

Better than this, because of larger scope and indicative of a wider interest in preliminary education, is the action of the last New York State Legislature in enacting the following:

"Before the Regents of the State of New York, or the Trustees of any Medical School or College within this State, shall confer the degree of doctor of medicine upon any person who has not received the baccalaureate degree in course from a college or university duly authorized to confer the same, they shall require him to file with the secretary or recording officer of their university or college a certificate showing that prior to enter-

[1] Abstract of Presidential Address at the Annual Meeting in Chicago, Ill., Nov. 13, 1889.

ing upon the study of medicine he passed an examination conducted under the authority and in accordance with the rules of the Regents of the University of the State of New York, in arithmetic, grammar, geography, orthography, American history, English composition, and the elements of natural philosophy, and such certificate shall be signed by the secretary of the Regents and countersigned by the principal or commissioner conducting the examination."

This enactment shows that the principle for which the Academy contends has been adopted by the State of New York. The examination is low, and the enactment incorrect in some details, but as a whole it is a great step in advance. We can rely upon the spirit which prompted and the intelligence which formulated the enactment to eliminate imperfections and advance the requirements as public sentiment shall desire.

It is meet that the Academy should take heart, because the enemies of the Illinois State Board of Health failed to accomplish its ruin this year. Its position, that no diploma will be recognized as entitling its possessor to practice medicine in Illinois unless given by a medical college which requires a definite preliminary examination, still remains the law of this State and is enforced. The service of this Board in teaching the doctrine of the absolute necessity of some preliminary requirement of medical students before entering upon college training, has been of incalculable value. It is doubtful whether any moral suasion would have been so effective, with the medical colleges, the medical profession and the laity and other State boards of medical examiners. As the pioneer of teaching this doctrine by law it will ever retain the gratitude of such as are able to appreciate its difficulties. Profiting by its success and failure, other boards have been established upon a higher plane, but all cheerfully acknowledge their debt of gratitude to this Board.

The results exhibited by the Minnesota State Board of Medical Examiners, under the last phase of its development are especially encouraging. Under the old Act, Minnesota licensed, in 1885, one hundred and forty-six physicians. During the following two years the State rapidly increased in population and yet under the last Act only one hundred and forty per year were licensed during the two following years. At the examination held October, 1889, of seventeen applicants only twelve were licensed. From this statement we are prepared to hear that Minnesota has but one physician to thirteen hundred people while in the rest of the States it is affirmed that one physician exists to every five or six hundred people.

The last Act, in brief, requires all persons desiring to begin the practice of medicine in Minnesota to pass a scientifically practical examination by a board independent of all medical schools. No candidate is admitted to examination unless he presents a diploma from a medical school that requires a preliminary examination upon the following branches: English grammar, composition, geography, algebra, physics and natural sciences, together with one of the following languages: Latin, French, or German. In addition the college must require attendance upon at least three full courses of instruction of not less than six months' duration, before conferring the degree of doctor of medicine. The practical result of this law has been to restrict the number of new men who have entered upon the practice of medicine in Minnesota, and very greatly elevate the general and special training of the new members. It has also given a stimulus to medical colleges in their efforts to advance the standard of preliminary requirement. It must be that in the near future the profession of Minnesota will possess a higher grade of general culture and professional acquirement than in the past, or than is possessed by other States. As this accords with the aims of the Academy, it can rejoice in such tangible proof of progress.

In Montana, Virginia, North Carolina, etc., there are also laws bearing upon the increase of the preliminary requirements of medical students. While these are less radical than the Minnesota Acts, they contain the seed which is sure to grow until they have equaled if not surpassed the foremost.

At the late meeting of the American Medical Association, Dr. Millard, so long actively engaged in the reformatory work in Minnesota, presented a scheme urging the adoption of such measures as would result in the adoption by each State of the Minnesota Acts. His idea was regarded with favor by those present. That difficulties attend its speedy realization does not render it less appropriate that we should accept it as an indication of the develop-

ment of our cherished principles. We are ready to grant that law cannot accomplish all the reform we seek, still we must admit that law can do much in numerous directions otherwise unattainable. It can lay its heavy hand upon the wilful transgressor, and make him respect the forms of propriety. The discussion of such laws incident to their formulation in each State, to their passage through the legislatures and to their enforcement compel attention from millions of the laity, and thousands of the profession, who otherwise would not give the matter a moment's thought. Medical colleges would thus learn that they cannot with impunity, for trade, prostitute the profession to which they belong. The law can make it profitable for the colleges to adequately increase their preliminary and other requirements.

The pharmacists at their last annual meeting, bewailed the low condition of the general culture of their craft and endeavored to formulate some plan by which such culture could be increased. They sought to have the professional side of their calling occupy a more prominent share of attention. The preliminary requirement suggested as fitting for those who desired to enter upon the study of pharmacy compares favorably with that of most medical colleges which enforce any preliminary examination. Thus in many directions the spirit of reform is abroad. While it works slowly, it is surely coming to the front.

Yet this aim has been severely criticised and censured by many, and, unfortunately, the criticism and opposition did not come from the narrow-minded cynic alone, but, to the shame and disgrace of the profession, from a large number of our medical institutions, some of which, we regret to mention, were manned by men of eminence and great learning, but had carelessly, for financial reasons, given cognizance of an opposition to a reform, which was entitled to the undivided support and encouragement from every member of the profession from the Atlantic to the Pacific. Of the nine attempts, to repeal the present Minnesota Practice Acts, at the last session of the Legislature of Minnesota, a majority of the professed amendments emanated directly from the medical colleges themselves. The evidence is overwhelming of the open and covert opposition of the mass of medical colleges to all enactments tending to limit the numbers of their students, and among these must be classed a proper preliminary education. They love large classes better than small ones. Reforms that will benefit their individual interests they will adopt; all others must receive their condemnation.

The lukewarmness of many members of the Academy is another obstacle to the effective prosecution of our work. Those not members, notice and comment upon this state of things. They see members teaching in medical colleges which maintain no preliminary examination; they see members taking students under their direction who have the merest smattering of general knowledge; they observe at the yearly meetings of the Academy only two or three score members present; they rarely, if ever, hear members speak of the Academy, and comment upon it to the physicians about them; in all these respects, they differ little, if at all, from non-members of the Academy. True, the Academy has ever had a remnant, to whose faithful services it owes its continued existence. The remedy for this state of things is for each member to arise and enter upon his proper duties as a disciple and preacher of the doctrine of the advancement of general education in the medical profession.

In correspondence with members of the Academy, and other intelligent individuals in the profession, I have been impressed by the general ignorance respecting the Academy, its nature, its aims, its constitution, its membership, its time and place of meeting, what it has done, what it was trying to do and what it proposed for the future. In fact, my own knowledge of the Academy has been acquired through great tribulation and I fear I am still densely ignorant. However, ignorant as I was, others were still more so, and together we have floundered along as best we could. The lesson from this state of things is obvious, the Academy should so make itself known to the profession, that all essential facts respecting it should be in such shape that any physician could readily obtain them. Thus far all will agree, but when we ask, How shall this be done? there is ground for difference of opinion.

We live in a commercial age, "a *trade* age," a "business age." Money, as well as brains, and persistent energy is necessary for the promotion of reformatory as well as other enterprises. In accord with the age, if the Academy intends to conduct an aggressive campaign in behalf of preliminary

education, it must have more cash. Hence it seems to me worthy of considering the question of so changing our law as to make annual dues imperative. It will be said, that such a change would drive from us many members. Doubtless this is true, but after all it does not appear that non-fighting soldiers ever won a hardly contested battle. On the other hand it is certain that large numbers would be attracted by seeing that the Academy was aggressively pushing its principles to their logical application, so that our loss would be more than compensated by our gain. I present the matter not for immediate action but for such consideration as will enable the Academy to adopt the wisest course, to increase the effectiveness of its work.

The time and place of meeting deserve a moment's attention. In general these should be fixed at least for a year in advance. Such fixation would enable each member to plan his work so that without too great sacrifice he might attend the meeting and contribute to its interest.

The fixing of the place and date by the council and fellows will be influenced by their deciding whether it is best to meet in relation to some other larger organization, or to continue as we have in the past to meet without reference to any other body. If as in the past we decide to meet at a time and place distant from other medical meetings, there are obvious advantages for fixing our meeting on the second Wednesday and Thursday in November. At such time all State and national organizations have held their annual gatherings, so that the Academy cannot conflict with any. On the other hand, if we decide to meet near the time of meeting of some other large organization and at the same place, we have a large number of societies to choose from. There are all the state, bi-state, tri-state, quator-state, quinque-state, all the various river valley medical societies, the several national special societies, separate or combined in the triennial congress, and lastly the American Medical Association. It is not proposed for the Academy to blend its organization with any or all of these bodies. It is simply suggested that the Academy meet in the same city as one of them and end its sessions before the other society begins its. Held in this manner I see no valid objection to the meeting before any one of each of these. But on the whole I am inclined to think that the gain to the cause of preliminary education would be greater by fixing our meetings so they would close before those of the American Medical Association began, and at the same city. Perhaps I will be pardoned for stating briefly the grounds upon which I base this judgment. Since 1874 I have been an active participant in the meetings of the American Medical Association. With it I have visited most of the large cities east of the Missouri river and learned by personal contact the profession of those several cities and adjacent country. I have seen the membership of the Association grow from five hundred to over five thousand. I have seen it adapt itself to the wants of the East, the South, the West, and the North, to a remarkable degree maintaining a uniform character throughout—simply that of the American physicians. I have seen its struggle to adjust itself to the changing elements of membership; its conflicts over medical colleges, over medical education; over preliminary education, over ethical differences, over the International Congress; have seen it establish and maintain an excellent medical journal in spite of powerful and unscrupulous opposition. As I look back over its forty years of history I find written on every page a sturdy devotion to steady professional advancement, and a constant preaching of our doctrine of preliminary education. At its first inception I was placed upon the Board of Trustees of the Journal and have been kept there ever since. This has compelled me to most closely study the Association, that for better or worse the Journal might be made to represent its wishes. In this Journal the effects of a lack of preliminary training can be studied with advantage. Hence it was necessary for the Trustees of the Journal and all connected with it, and all the better men in the Association to seek for a higher grade of preliminary requirement. Frankly I confess that ofttimes I became discouraged at the obstructions of ignorance, selfishness, but the work goes on and will go on because there still remains enough leaven in the Association for its preservation.

Dr. Sargeant, Professor of Physical Culture at Harvard, utters a word of caution about over-exercise. He says that those who have been most successful in heavy gymnastics are also subject to nervous complaints.

CUPRIC ARSENITE.

BY L. G. BROUGHTON, M. D.,
REIDSVILLE, N. C.

Some months ago I saw in the *Therapeutic Gazette* an article from the pen of Dr. John Aulde, of Philadelphia, Pa., on the action of cupric arsenite, and being impressed with the value of the drug from the character of the article and also from its combination, I decided to try it in my practice; so I wrote to Dr. Aulde and asked him to send me some tablet triturates of arsenite of copper, which he very kindly did.

My first case was that of a woman about fifty years old, who had had consumption for several years. Recently she had been suffering greatly with indigestion, diarrhœa and night-sweats. I had tried to control the night-sweats by the use of oxide of zinc, quinine, mineral acids, etc. I had tried to overcome the indigestion by use of all remedies indicated for such cases. I had tried to cure the diarrhœa by the use of every remedy I knew of, including opium and active astringents; the latter acting well so long as they were used, but as soon as they were stopped the diarrhœa would again make its appearance. This was the nature of the first case upon which I used cupric arsenite. The results were as follows: At 6 P. M. I stopped all former treatment and wrote the following prescription:

℞ Two tablets trit. cupric arsenite, . āā gr. $\frac{1}{100}$
Aquæ . . . . . f℥iv
M.—Sig.: One teaspoonful every quarter hour.

I directed that this should be kept up until I called the next day, unless the patient's bowels were not moved in six or eight hours, while in this case the medicine was to be stopped entirely. The next day at 8 A. M. I again called and much to my astonishment found that her bowels had moved only once. The attendants had retained the stool for my inspection, and I found it moderately good in character. She had also suffered but very little from night-sweats, a result which I had not at all expected from the use of the drug. During the day I directed her to take the medicine every hour. At 8 P. M. I saw her again, and from my note book I take her exact words: "Well, Doctor, I think that water you gave me has struck my case at last." Her bowels had acted only once during the day. Her spirits were very good, her appetite pretty sharp and her digestion perfect, so far as I could tell. I directed her to continue the medicine every hour through the night when awake. Next morning at 9 o'clock I called again, and found her looking bright. When asked how she felt she said: "I feel splendid. I slept from 9 last night until 6 this morning, and consequently took very little medicine." I asked if her bowels had moved. She said, "No." I asked if she had been troubled with night-sweats, and she said, "Not one particle." I then directed her to take the medicine during the day for some time to come, at intervals of an hour or two. In a few days' time my patient was put upon cod-liver oil, and tonics directed to the improvement of her general health and now she is able to attend her house work as well as ever. I am satisfied that but for the arsenite of copper this woman would have died.

Case 2. This patient was a woman forty-five years old, who had had dysentery for two weeks or more. The case had been under the care of a friend of mine and at this time (when I saw her with him) the trouble had assumed an entero-colitic type, the stools being very frequent and very offensive.

She had considerable pain after taking food, water or anything into her stomach. My collegue had tried everything, it seemed to me, except the cupric arsenite, and I advised him to try that. He said he knew nothing concerning it, and I told him I did not either; but we would try it, if he said so. So we wrote the following:

℞ Two tablets trit. cupric arsenite, . āā gr. $\frac{1}{100}$
Aquæ . . . . . f℥iv
M.—Sig.: One teaspoonful every quarter hour.

My friend remained to watch the effect. The next day I received the following note: "Dear Doctor: I gave the medicine as you advised; the bowels never acted from the time you were here until this A. M. I stopped medicine at midnight. The discharge looked very natural, and the patient is very comfortable in every respect. What shall I do further." My reply was: "Dear Doctor: Continue the medicine at intervals of an hour or two during the day," and in a few days I got the following note: "Dear Doctor: Our patient is well, and I am full of praise for cupric arsenite."

Case 3. Was a young man, nineteen years old, who had acute dysentery. Without trying anything else I at once put him

on cupric arsenite. He took it in the same manner as the previous patients. The discharges were speedily lessened in frequency and improved in character, but nausea set in to such an extent that I was forced to stop the medicine. I do not know why this was; for I have never seen it have the same effect again. It was undoubtedly the cupric salt that did this; for every time I began its use the same disagreeable symptoms would show themselves. It must, of course, have been due to an idiosyncrasy of the patient.

Case 4. Was a child eleven months old. The mother stated, upon my first visit, that the baby must have been suffering with pain from the way she had been fretting, and also that her bowels had been moving every fifteen or twenty minutes, the stools being very watery in character, containing small bits of undigested food, and being very offensive. I prescribed:

℞ Hydrarg. chlor. mitis . . . . . gr. ii
Pulv. ipecac. . . . . gr. ss
Sodæ bicarb. . . . . gr. vj
M. Ft. Pulv. No. iv. Sig.: One every two hours.

The next morning I called, and found the condition about the same. The bowels were acting every half hour. I prescribed:

℞ One tablet trit. cupric arsenite . gr. $\frac{1}{100}$
Aquæ dest. . . . . f℥ ij
M.—Sig.: One teaspoonful every fifteen minutes.

I called again at 6 P. M., and found the bowels had acted only once. The character and consistency of the stools had been good, and the child was bright and playful.

But my best hopes from the use of cupric arsenite are to be realized in the treatment of the diarrhœa of typhoid fever. There is no question in my mind that in it we have a safe, reliable, and, as near as possible, a never-failing remedy for this much-dreaded trouble. For a long time I have been suspicious of the use of opium in treating these symptoms, for I have frequently seen profuse perspiration, nausea, and partial suppression of urine resulting, I am sure, from the use of opium. Not only so, but somehow I begin to look out for dissolution when I have to use opium in great quantities for the relief of this trouble. The following will illustrate my method of treating the diarrhœa of typhoid fever now; and I can truthfully say that I have no trouble at all. When my typhoid patients begin having tympanitis and tenderness of the bowels, I prescribe sulpho-carbolate of zinc, in two-grain doses every three hours, to destroy local germs, and to prevent the transmission of the product of germ action into the general system. I believe that the intense nervousness and the general condition we call "*typhoid*" is caused, not by the invasion of the germs themselves, but by the absorption of the products of germ action; so I use the zinc salt as soon as these symptoms appear. Sometimes sooner, if the general condition will admit of it. Then, when the peculiar characteristic stools first appear I begin the use of the cupric arsenite, usually in the following manner:

℞ Two or four tab. trit. cupric arsenite, āā gr. $\frac{1}{100}$.
Aquæ dest. . . . . f℥ ij.
M. Sig. One teaspoonful every half hour until the bowels are brought under control.

This preparation is kept in the house until the patient is out of danger, with directions to use it in the same manner when the bowels begin acting too frequently. The use of the zinc is also kept up, and very little else is done in the way of medicine. I am sure that this method will please and surprise every one who will try it. In cases of chlorosis I have also observed decided benefit to follow the use of the remedy in small doses. I had never seen it recommended in these troubles; but I was led to try it, and in every case have seen good results—better than from any other drug I have ever used. I will not particularize here, but simply say that, if the case is properly selected no fears need be entertained as to the ultimate results.

Take the following case—a girl with deranged menstruation, pale and chloratic in appearance; with pain in the bowels just prior to, and just after taking food; with alternating conditions of the bowels: first diarrhœa, then constipation. One-half of a grain of cupric arsenite was given just after meals, and great benefit was obtained in a few days.

Now, I cannot see just how this remedy acts, except by the alterative properties which it undoubtedly possesses in a very decided degree. One thing I do know, viz., that it is a remedy well worthy our study and trial.

The population of Germany is 39 millions and that of France 36 millions. During the Franco-Prussian war the population of France was 38 millions and that of Germany 36 millions.

CREMATION.

WHAT IS THOUGHT OF IT BY PHYSICIANS.

INTERVIEWS WITH PHYSICIANS BY A REPRESENTATIVE OF THE MEDICAL AND SURGICAL REPORTER.

FOURTH SERIES.—NEW YORK.

DR. GEORGE L. PEABODY says: I really have no very pronounced views about cremation. Of course I am in favor of it as a principle; but it seems to me of much less vital necessity here than it is in the older and more densely populated countries. It is not likely that it will be made much less expensive than burial; and for cities like this, that draw their water-supply from a distance, it is not of much local importance. If it had been, it would probably have been accomplished long ago.

DR. S. GAILLARD THOMAS says that in his judgment cremation of the dead is one of the greatest advantages which modern civilization has proposed for the benefit of mankind. From his standpoint, it is free from all objections in itself, while offering countless advantages to humanity. The struggle which prejudice will wage against the plan will be a sharp and severe one. The public will have to be educated up to its appreciation; but the day must come when cremation will everywhere take the place of burial as practiced amongst us to-day. May its advent be soon!

DR. J. LEWIS SMITH says: Having been taught to repeat every Sunday my belief in the resurrection of the body, cremation, as well as burial under ground, is repugnant to my feelings. Burial in vaults above ground seems to me the proper mode of disposing of the dead.

DR. V. P. GIBNEY says: As to my views about cremation, I would say that I am not fully prepared to express myself on the subject. If I divested myself of sentiment and took a purely scientific view of the matter, I should of course say that cremation was the best mode of disposal of the dead; but there is something about a well-kept cemetery that appeals to my sentiment. Time and again I find myself envying those who lie buried amid these beautiful surroundings.

DR. F. H. BOSWORTH says: I really know nothing about cremation, and have nothing to say about it. On sanitary grounds it seems a most excellent method of disposing of the dead; but on sentimental grounds I think it will always be repulsive to the very large majority of people.

DR. J. WEST ROOSEVELT says: My views upon cremation resemble the snakes in Ireland—there are none. I have given little thought to the matter. As things stand, I should say that the advantages of cremation, in the absolute safety it affords for destroying disease germs, are fairly balanced by the suffering to many prejudiced surviving friends which it causes. That this way of disposing of the dead is the best, I doubt not. That the dead practically injure the living as much as some think, I do doubt, however.

DR. CHARLES L. DANA says: I do not believe in cremation as a sanitary or esthetic need or as something required by our social progress. I feel a genuine old-fashioned Philistinic antagonism to the whole thing. My ancestors, as far as records go, were all decently buried and my descendants I hope will be; I certainly shall be if I don't get caught between some 1000-volt wires, and the ground does not become too expensive about New York. The dangers of earth burial are all fanciful. No serious epidemic has ever been started by a cemetery, and very slight precautions will make all cemeteries safe. The esthetic argument for cremation can only appeal to a disordered fancy. For there is nothing beautiful in being shoved into an oven, and scientifically barbecued by a patented furnace, and having one's ashes subsequently weighed on a Fairbank's scale. It is better to moulder slowly out of sight beneath a mound of green turf and not cheat the earth of its nitrogen. I believe, however, that there should be some crematories for those who like such things. The cranks must be appeased, and they have a right to choose this form of *post-mortem* disintegration. The real problem of mortuary disposal now is not esthetic, or sanitary, or religious, but economical. In our large cities a man cannot afford to die unless he is a millionaire. Any one who will make it possible for a poor man to be buried without impoverishing his family will convey a genuine boon.

DR. R. W. TAYLOR says he thinks that, from a sanitary point of view, cremation is a good thing, but that in applying it one would meet with many persons who would oppose it from sentiment.

DR. GRACE PECKHAM thinks that the pres-

ent mode of disposing of the dead — by burial—is, from a sanitary point of view, dreadful. Cremation, she says, is the most sensible method, but for this many have a horror, and to meet their sentimental objections the desiccating process, for the carrying out of which there is a new Mausoleum Company established in New York, cannot be too highly commended.

Dr. A. L. Loomis claims to have given the subject little study. He might say, however, that when he passed the burial grounds on Long Island, with their repulsive surroundings, he thought cremation had its attractions; but, on the other hand, when he visited Woodlawn, with its well-kept grounds and splendid monuments, he felt that this would be a desirable final resting place.

Dr. R. A. Shultz says that cremation, if it were universally practiced, would deprive future generations of the knowledge of our times which might be derived from a study of the human skeleton. Applying this idea to individual cases, what, it might be asked, would we not give for the skull of Socrates, of Julius Cæsar, of Michael Angelo, or of Shakespeare?

Reports of Clinics.

UNIVERSITY HOSPITAL.

CLINIC ON THE DISEASES OF WOMEN—DR. W. GOODELL.

Gentlemen: The patient upon whom I performed a double ovariotomy in this amphitheatre one week ago to-day, I am happy to tell you has done very well. Her temperature did not at any time rise above 100° F. I had intended to bring her before you to-day to take out the stitches; but I shall be unable to do so, because my remaining time after the operation this morning will be wholly taken up in the consideration of a case that has been sent to me for diagnosis.

Double Oophorectomy.

The case that I bring before you this morning perplexes me; yet I feel that I am on the right track. She is twenty-nine years old, and her symptoms are briefly these: A few years since she began to have a pain in each groin. These pains have gone on from bad to worse, until now she has no rest from them without resorting to the use of anodynes. She was attended in her native town by an intelligent physician, and, after treating her for some time, he has finally sent her to me to see what can be done here. She tells me she has pain over both ovaries, and upon examination I find that the right one is apparently enlarged. But the objective symptoms are hardly sufficient to account for the excessive pain she has suffered; so that what I propose to do to-day is to make an exploratory incision and find out her exact condition. I believe that I shall find trouble in both ovaries and tubal disease on one side at least. Her face looks as though she has had some venereal disease; but she assures me on her honor that such has never been the case. Her nose looks as if she has had an ozena; but her mother tells me that she has not had any trouble of this kind either. After the usual preliminary antiseptic precautions, I proceed to operate. I pinch up a part of the abdominal wall. There is much fat here, so that I have to make my incision longer than usual. I cut down through the skin, superficial and deep fasciæ, and I always aim to strike the linea alba, so that the hemorrhage may be less. There is in this case more bleeding than usual, and, if I were dealing with a tumor, I should say that this bleeding is dependent on adhesions to the abdominal wall. I now find with some difficulty the linea alba, and you understand that, before dividing it I have, in this case, secured the bleeding vessels above it. This being done, I come to the præperitoneal fat. This is to be divided with care, because the intestines may lie directly under it. I am now down to what I believe to be the peritoneum; but, upon further examination, I find that what I took to be the peritoneum, is really the sheath of another layer of fat, so you see what extreme care it is necessary to use in these operations, lest a bowel be wounded. I have never yet accidentally cut into an intestine, but I have nicked their peritoneal coat twice.

I am not sure whether what I now have hold of is an adherent bowel, or whether the peritoneum intervenes between me and the bowel. I am often worried in cases like this in which there has been peritonitis by the possibility that there may be a bowel adherent to the peritoneum, so that I have to use the greatest care, as the peritoneum itself is thickened, and I do not know exactly what is before me. Finally, after

much perplexity, I cut through the peritoneum and come to the omentum. I find it to be adherent to the abdominal wall, and also to the pelvic brim, so that I have to peel it off out of the way. I look upon these operations—that is, some of them—as requiring far more skill and anxious care than that of the removal of an ovarian cyst.

Upon examination now I find that the right ovary is fastened by adhesions to the intestines and the omentum. While these adhesions are not marked, yet they served to hold the ovary too high up, and by thus drawing upon it served to bring on those pains for which her physician had blistered her at this point. I would here remark that, on account of the danger and liability of the intestines being injured during these operations, I always carry with me needles to be used in case of such an accident. Fortunately, however, I have never yet had to use them.

Having now tied the pedicle, I proceed to remove the ovary and tube. I feel the pedicle to see whether it is securely tied and, finding that it is, I examine the left ovary. I find here too the effects of the peritonitis. There are here too peritoneal and omental adhesions. Breaking up these adhesions, which also are slight, I find that the ovary is enlarged. There has evidently been an ovaritis at some time. I have emphasized the slight character of these adhesions, because I want you to remember that even though insignificant they may cause much pain, and that at the time of menstruation these pains may become agonizing. I show you in this specimen a corpus luteum, which burst during the operation. You will see the cicatrix and will also mark how very congested these tubes are.

The great trouble in this case was not only that there had been an ovaritis, leaving these organs sore and tender, but also that there had been a peritonitis, gluing the different parts together and keeping the ovaries in fixed positions, so that they were pressed upon by other organs. I believe that we shall cure her, if she has not had syphilis, although from her great suffering she has been the most wretched looking creature that I have seen for a long time.

To proceed with the operation. Only the other day I told you that all the layers of the abdominal wall were to be included in the abdominal sutures and that the utmost care was to be used in securing perfect coaptation. This is done in order to have as strong a cicatrix as possible and thus prevent hernia, which, however, does occur sometimes in spite of every precaution. It is for this reason too that the stitches are put in deep and close together. Now that all the sutures are in, I remove the sponge. It comes out very clean and I, therefore, know that there is no hemorrhage inside. I carefully raise up the line of sutures in order to be certain that I have not included at any point the intestine or the omentum; for that would be a serious mistake. Although I feel very certain that no instruments or sponges have been left in the abdomen, I count them, as is my custom, in order to be perfectly sure, and find their number to be correct. The sutures are now tied and the abdomen washed and dried.

The dressing is now applied. A thick wide bandage is first placed in readiness under the sacrum of the patient. I then sprinkle iodoform freely over the wound, especially about the navel, which is a favorite lurking-place for septic matter. Then comes the iodoform gauze above which the baked cotton is secured in position by adhesive strips which hermetically close up the wound. The bandage underneath is now drawn round the abdomen and pinned with safety pins, after I am assured that there are no creases or folds in the bandage: for, as the patient will have to lie on her back for some days, they would be liable to cause uneasiness, if not excoriations.

There is one more question. It is this: Why did I not flush out the abdominal cavity here as I did in the case of last week? Because when the sponge was taken out it was free from blood, and I therefore felt that this precaution was unnecessary. I cannot help feeling that this was a case of venereal disease. But she emphatically denies it and I trust that she is right. If she is free from all specific taint, it greatly increases her chances of recovery. She has evidently had a peritonitis, though she gives no history of that either. There is such a thing as latent peritonitis just as there is a latent pleurisy. They may be unrecognized at the time of their occurrence, but will often give rise to adhesions that will cause pain in after years, and such might have been the case in this instance.

Sub-peritoneal Fibroid Tumor of the Uterus.

The next patient I bring before you merely to make an examination. She came

to this hospital last spring and was anxious to have the operation of oöphorectomy performed. This I did not deem advisable to do then as she looked comparatively well and stout. Besides, I did not then have time thoroughly to examine the case, as I was just about starting for my vacation, so I declined to operate, but gave directions for her to follow, and remedies to take during my absence. Upon my return, I find that she is no better. She is still desirous of an operation and the physician who has been attending her earnestly recommends oöphorectomy. She was so sore to the touch, and so incapable of relaxing her abdominal muscles whenever any attempt was made to manipulate the parts, that, in order to make a thorough examination she has been put under the influence of ether.

I find, before going any further, that the abdominal wall is fat and flabby. This will make the examination more difficult than if she were thin.

Upon examining the womb, I find that it is enlarged by a fibroid tumor. She menstruates every three weeks, although not profusely. As I press upon the left ovary, she writhes, even under ether. Dr. Taylor, who has a longer finger than I have, thought that he could feel the organ distinctly, but I am unable to say that I am pressing upon it, except from her flinching. The womb is increased in size; but I know that she is not pregnant on account of the hardness of the cervix. And here let me give you a simple rule that I have found of great value in practice. It is this: If the mouth of the cervix is as hard as one's nose, the womb is most likely empty; but, if it is as soft as one's lips, the woman is probably pregnant. Now a cancer of the cervix would, of course, make it hard even if pregnancy were present, and it sometimes happens that an intra-uterine tumor will make the cervix soft. But these conditions occur so seldom, or when they do occur are so clearly indicated by their individual differentiating symptoms, that the rule is still practically a very useful one.

Now, to continue the examination, I find that the uterus is nodular and tortuous. It is difficult to get the sound in the uterine cavity, and when at last it is in, it gives a measurement of only three inches. The size of the uterus would indicate a much greater measurement than this, so I conclude that the enlargement in this case is in the external wall of the uterus and that the woman has what is called a sub-peritoneal fibroid tumor. These sub-peritoneal fibroids, because they are the most liable to exert pressure and to cause adhesions, give more pain than the other two varieties, namely: the sub-mucous and the intra-mural. But, as a makeweight circumstance, they do not bleed as much as either of the other two kinds. Moreover, either one of the two latter gives a greater measurement. When I make these examinations in women who are not etherized, there often occurs a spasmodic contraction of the abdominal muscles, and this interferes with or prevents my making a correct diagnosis. The strong recti muscles seem to stand on guard, and as soon as I touch her on a tender spot, they become rigid. To prevent this I first ask the woman to breathe evenly and deeply so as to call the abdominal muscles into play and I then try to engage her attention by conversation. If both these methods fail, I am compelled to resort to etherization.

I cannot feel the ovaries in this woman, yet I feel justifiable in operating on account of her long-continued suffering. If I remove her ovaries, she will cease to menstruate—though this function does continue for a while in five per cent. of the cases in which both organs are taken out. The monthly determination of blood to the uterus being stopped, the tumor not only ceases to grow, but it becomes smaller and finally innocuous, although it may not wholly disappear. This has been my invariable experience in cases of oöphorectomy for fibroid tumors.

The Nature of Negative Hallucinations.—M. J. Foutan has recently devised an interesting method of showing that in hypnotism the physiological processes remain, while their psychic interpretation is altered. If a subject be told that he sees nothing red, every thing of this color falls out of his mental horizon, and we have an ordinary instance of a negative hallucination. If, now, the red object viewed be a red light, and if we suggest to the subject that when a bell is sounded he will again be restored to normal vision, and if as the bell is sounded the light is put out, the subject sees a light of the complementary color, green, just as he would have done when normally viewing a red light. While the brain refuses passage to the sensation of red, the retina is impressed with it, and re-acts to it, just as though the action were normal in every respect.

PERISCOPE.

Treatment of the Perineum During Labor.

Dr. Lucy Waite, M. D. (as reported in the *Obstetric Gazette*, Dec., 1889), says: Every accoucheur decides early in his practice as to his method of treating the perineum, and if under his method he has a measure of success, it is a difficult matter to convince him that there is a better. The first question to decide is whether or no the perineum shall be manipulated at all. Some of our leading obstetricians have put themselves on record as opposed to all forms of manipulation, classing them under the odious title of meddlesome midwifery. It seems to me that, keeping in mind the two objects to be gained—the prevention of too rapid delivery of the head, and the favoring, as far as possible, the minimum pressure on the posterior pelvic floor—skilled manipulation of the head and perineum cannot fail to aid in guiding the head through the narrow canal which it is obliged to pass.

I am a convert to the German method as practiced in the hospitals of Drs. Sparth and Braun of Vienna. In brief, the *modus operandi* in vogue in those hospitals is as follows: The normal case of confinement is under the care of a midwife in training. It is her duty to watch the progress of the case, and on the bulging of the perineum, the patient is drawn to the edge of the bed, and turned upon her left side. The limbs have been previously wrapped in sheets. An assistant sits on the edge of the bed and supports the right limb, so as to raise it up and off of the arm of the operator. The operator takes her position at the back of the patient, passing the left hand over the right limb and between the thighs, and presses back the oncoming head with the fingers of the left hand. The ball of the right hand covers the anus, the thumb being placed on one side of the perineum and the fingers on the other. The central perineum is thus left in sight between the thumb and first finger, and is at no time subjected to pressure. In this position the head is under perfect control, lying between the two hands of the operator. With the right foot raised upon a stool or round of a chair and the elbow of the right arm resting against the right knee, the operator is in a position to use to the best advantage all the strength he possesses. Given this position of both patient and operator, the delivery of the head without laceration of the perineum, in any case which can reasonably be called normal, becomes a matter of strength, patience and judgment.

The head is really delivered between the pains. During pain the head is crowded back by the fingers into the vagina, allowed to advance only enough to put the perineum slightly more on the stretch than after the last pain, and between the pains the head is pushed by the ball of the right hand very gently upward and forward, away from the pelvic floor, and under the pubic arch. The head is practically rolled out between the two hands. The perineum is thus stretched, line by line, and the head must be large and the perineum indeed tough which cannot be managed in this way, if sufficient time is taken.

The rules of the hospital require the attending midwife, if she has any suspicions that she is not going to be able to manage the case successfully, to summon the head midwife. The one in this position during my stay in the hospital had held it for thirty years, and was a most accomplished accoucheur. I have seen her deliver a large head when the perineum was stretched as thin as tissue paper, and the features of the child plainly visible through it. In such hands the manipulations become a work of art. As the thin membrane passes over the nose and chin, the assistants unconsciously catch their breath, and cannot believe that the perineum is saved. The delivery of the shoulders must be managed with the same skill, or all has been in vain. If the shoulders do not of themselves turn into the antero-posterior axis of the canal, they are quickly turned, and the shoulder, pressing upon the perineum, delivered first, the other follows, and the second stage of labor is completed.

There are cases which even the skilled fingers of the over-madam, as she is called, cannot successfully manipulate, and it becomes her duty, when she sees a threatened rupture, to summon the house surgeon, who immediately performs episotomy. This is done by one cut made to the side from within out, from one-half to an inch, according to the judgment of the operator. The immediate operation is done, in all cases, and the patient leaves the hospital with a sound perineum. No anæsthetics are used in normal cases, and no lubricants of any kind. In fact, it would be impossible to manipulate the perineum in this way if the parts were

more slippery than they must be under the natural lubricating fluids secreted at the time. A large reduction in the per cent. of lacerations is claimed for this method: twelve per cent. in all cases, as opposed to fifteen to forty per cent. under other methods. When the forceps are used in head presentations, the patient is delivered on the back, the same general method being used, the forceps taking the place of the left hand.

Neutralization of the Bacillus of Tetanus.

In June last Professor Sormani of Milan announced to the Lombard Institute of Sciences the results of his experiments on the neutralization of the tetanigenous microbe—results which seemed to justify his conclusion that iodoform, iodol, and corrosive sublimate are absolutely destructive to the bacillus in question. To these disinfecting agents he has, as the result of further experiments, added three more—namely, chloroform, chloral hydrate, and camphorated chloral, the latter being, he alleges, in a marked degree efficacious; while camphor and camphorated alcohol he found inert. On a general review of the whole, however, he gives the preference to iodoform. Seven rabbits were inoculated with materials charged with the tetanigenous virus. From six of these, after an interval of twelve hours, the foreign body was removed during the period of incubation; from the seventh the substance was removed only when the first symptoms of local tetanic convulsions had declared themselves. In all these animals the wound was scraped and thereafter freely medicated with iodoform. The seventh rabbit died of tetanus. Of the first six five were saved. From this Dr. Somani concludes that medication of wounds with iodoform ought to be practiced before the setting in of the first tetanic symptoms. Nevertheless, even during declared tetanus, the application of iodoform to the wound is capable of disinfecting it and of removing from it all trace of virulence. Wounds and sores treated with iodoform, especially wounds or sores contaminated with earth, yield results highly welcome to the surgeon—such medication preventing the access of that fatal tetanic symptom which, having once declared itself, leaves but little chance for skilled interference. Dr. Sormani gave confirmatory proof of his thesis by cases of tetanus in hospital, where iodoform opportunely applied saved the patients, and where, from its use having been unfortunately suspended, two lives were sacrificed.—*Lancet*, Dec. 14, 1889.

A Board of Medical Examiners in Florida.

The question of the State regulation of medical practice is one concerning which some honest difference of opinion exists even within the ranks of the profession itself. An esteemed correspondent has recently offered as an objection to such measures that any attempt to control medical practice is an encroachment upon personal liberty, and he holds that public opinion will of itself, and in its own good time, bring about the elevation of the medical standard of education so that no State interference will be necessary. The same argument might apply equally to bunco-steering and sawdust swindles. There can be no question that public opinion is against such practices, yet few sensible men will deny the right of the State to repress them whenever it has the opportunity. We may admit that society frowns upon dishonesty, that the schools teach morality, and even that the world is growing better every day, but we cannot yet afford to erase all laws from the statute-book, to open the prisons, or to close the courts.

It is possible that a better way to protect the community from the injury done by charlatans and ignorant practitioners than State regulation may yet be found, but at present none other exists in practical shape. Whether that will be effectual can be demonstrated only by a practical experience, and for this reason, if for no other, we are glad to see one State after another falling into line and putting to the crucial test of actual trial the utility of such a measure.

Florida is the latest of the commonwealths to pass a law of this nature. The act provides for the appointment of a board of medical examiners in each Judicial District, and in addition one board of homœopathic medical examiners for the whole State. The members of these boards are to be practicing physicians of good standing and graduates of some medical college recognized by the American Medical Association and by the American Institute of Homœopathy, respectively. They are to be ap-

pointed by the Governor of the State and are to serve for four years. The boards are to meet twice each year in their respective districts for the examination of candidates and the granting of certificates. The subjects for examination, as specified in the act, are anatomy, physiology, surgery, gynecology, therapeutics, obstetrics, and chemistry; but, strangely enough, no provision is made for materia medica or practice of medicine unless therapeutics can be construed to embrace both these branches. Only those receiving certificates shall be entitled to practice medicine in the State, but those already engaged in practice at the time of the passage of the act need not undergo an examination, the presentation of a diploma from some recognized medical college being sufficient to entitle them to a certificate from the board.

Governor Fleming has requested the State Medical Association, through its president, Dr. R. A. Lancaster, to recommend physicians for appointment on the several examining boards, and it is believed that all the boards will have organized and held their first examination before the beginning of the new year.

It will be seen that this act differs in some respects from those already in force in some of the other States, and it would seem that the framers of the law might have done better had they followed more closely in the footsteps of their predecessors in some other parts of the Union. Nevertheless this is a beginning, and we hope the time is not far distant when every State will have some such law, and we shall then learn whether the community is able or not to protect itself by legislative enactment from the dangers of quackery.—*N. Y. Medical Record*, Dec. 28, 1889.

The Law and Christian Science.

In the *New York Med. Journal*, Dec. 28, 1889, Dr. T. C. Bierwirth, of Brooklyn, has an article on so-called Christian Science Cure and Faith Cure, in which he describes two cases where this fanaticism was followed by death, and states the law in New York in regard to the matter.

The sections of the Penal Code bearing on it are as follows:

SECTION 288. A person who wilfully omits, without lawful excuse, to perform a duty by law imposed upon him, to furnish food, clothing, shelter, or medical attendance to a minor, is guilty of a misdemeanor.

SEC. 289. A person who, having the custody of a minor, either—1. Wilfully causes or permits the minor's life to be endangered, or its health to be injured, or its morals to become depraved; or—2. Wilfully causes or permits the minor to be placed in such an occupation that its life is endangered, or its health is likely to be injured, or its morals likely to be impaired; is guilty of a misdemeanor.

SEC. 675. A person who wilfully and wrongfully commits any act which seriously injures the person or property of another, or which seriously disturbs or endangers the public peace or health, or which openly outrages public decency, for which no other punishment is expressly prescribed by this code, is guilty of a misdemeanor.

Among the New York city ordinances relating to the Department of Health the following two sections are also applicable to the cases under consideration:

SECTION 8. That no person shall carelessly or negligently do, or advise, or contribute to the doing of any act or thing dangerous or detrimental to the health of any human being; nor shall any person knowingly do, or advise, or contribute to the doing of any such act or thing not actually authorized by law except with justifiable motives and for adequate reasons; nor shall any person omit to do any act, or to take any precaution reasonable and proper, to prevent or remove danger or detriment to the life or health of any human being.

SEC. 140. That no person shall within the built-up portions of the city, without the permit of this board, carry or remove from one building to another, or from any vessel to the shore, any person sick of any contagious disease. Nor shall any person, by any exposure of any individual sick of any contagious disease, or of the body of such person, or by any negligent act connected therewith, or in respect of the care or custody thereof, or by a needless exposure of himself, cause or contribute to or promote the spread of disease from any such person, or from any dead body.

Any one violating these sections of the Penal Code and of the city ordinances is guilty of a misdemeanor, the extreme penalty for which is imprisonment for one year and a fine of five hundred dollars.

In the event of a fatal termination resulting in the case of a child the parents are

guilty of manslaughter. The English courts in the case of Reg. *vs.* Downes, 13 Cox's Cr. Ca., 111, held that "It is no answer to the charge of manslaughter that the parent so neglected from a conscientious religious belief that it was wrong to call in medical aid, and that medical aid was not required, and not from any intention to disobey the law."

From these quotations it will be seen that the provisions of the law are ample to reach at least some of the wrongdoings of these religious fanatics. In every case where a child is concerned, the Sections 288 and 289 are sufficient to bring the offenders within the reach of the law, and when the case is one of a contagious disease in either a child or an adult the boards of health of this State have the power to interfere and compel medical care and attendance. If all the cases belonging to these two classes, which may come to any one's notice, are reported to the proper authorities, the believers in faith and prayer as a panacea for all ails will receive a wholesome check. It is useless to attempt a reform in the present adherents to the faith cure; they are deaf to all reason and logic, and will continue to be guided only by their superstitions. But the legal interference in their practices and a few severe punishments will frighten off new-comers, and thus we may hope to prevent an increase in their number. Those who may be punished will be strengthened in their belief and regard themselves as martyrs of their cause, as were Christ and His apostles, whose lives these fatalists try to emulate. They are honest and sincere in their belief. Most of them are kind and peaceful, and it may seem that the punishments for their offenses are harsh and too severe. But, as they refuse to be taught, they must be treated as children and punished when they do wrong. The penalties inflicted cannot be considered too severe when we regard for a moment the seriousness of their offense. Their practices create hot-beds for two of the most dangerous and fatal diseases of childhood, and add to the already too large number of cases of contagious diseases which are constantly occurring among the poorer classes and which are never attended by a physician. Many of the poorer people never think of sending for a physician in a case of measles or of sore throat (diphtheria), and not even in a case of scarlet fever; and I think in this fact is found, to a great extent, the explanation of the large number of cases of these diseases annually occurring. The members of families in which cases of contagious diseases exist mingle in the course of the day with a large number of people, both at school, in public conveyances, and in their crowded tenements, and thus they may produce a large number of new cases.

The cases cited by Dr. Bierwirth point significantly to the good work that is being done by the societies for the prevention of cruelty to children. Had it not been for the existence of the local society, these cases would have passed unnoticed, as has been shown by the difficulties experienced to find the proper authorities who would take action in the matter. The chief trouble was that no precedent existed, but now that this has been established, future cases, if discovered, will encounter no difficulties.

From this recital it appears that medical men will be called in only to furnish death certificates, when these seem likely to be needed, and it will be only in this way that cases will come to public notice.

Since the reading of Dr. Bierwirth's paper the cases he mentioned have come up for trial. All the defendants were found guilty, and appropriate sentences were imposed.

Psoriasis.

The following is said to be a good salve for psoriasis, or for herpes tonsurans:

℞	Anthrarobin	10 parts
	Olive oil	30 "
	Lanolin	60 "
M.		

Cosmetic Wash.

Hebra, the well-known authority on skin diseases, devised a number of cosmetic preparations which are still largely patronized in Europe. Perhaps the one most extensively employed is the one known as "Oriental Cosmetic Water." Its formula is as follows:

℞	Hydrag. chlorid. corrosiv.	gr. ¼
	Emuls. amygdal. amar.	f℥ jv
	Tinct. benzoin	f℥ j

The mercury salt is dissolved in the emulsion of bitter almonds and this mixture is gradually added to the tincture. The mixture does not keep long. It should be preserved in opaque bottles and well shaken before being used.

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The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

"LA GRIPPE."

Personal experience with the prevailing epidemic of influenza has rendered the profession so extensively, if not painfully, familiar with all the divers phases of this most unpleasant malady, that anything said on the subject may seem trite. Still the occasion is one which cannot be allowed to pass with no formal notice from the REPORTER. The nature of "la grippe" is not unquestionably determined; but its special features seem to be the suddenness and severity of its onset, the predominence of pain, depression, and catarrh of the respiratory or intestinal tract, or of both, and the pandemic extent of its prevalence.

The latest news from Europe indicates that the disease is still on the increase in England, Germany and France; although Russia, its apparent starting place, is gradually becoming freed from its ravages. Professor Leyden, of Berlin, recently estimated that one-third of the entire population of Germany was suffering from the complaint. In Danzic many schools had been closed. In Hamburg work was well nigh paralyzed, in business offices as well as schools. Berlin and many other cities were similarly stricken. In Austria the disease was also increasing. It has been especially prevalent in Vienna, where many of the lectures and courses at the hospitals have been suspended on account of the illness of both professors and students, while the hospitals were so crowded with patients that many were compelled to lie on the floor of the wards, and admission had to be refused to a very large number of daily applicants. Owing to the absence of compulsory notification, any definite report as to the number of cases is unobtainable, but besides those in the hospitals many thousands of cases have been reported by private practitioners. In France the epidemic has assumed very grave proportions; a large number of deaths have been reported and the disease is still on the increase. England is also getting her share, and the medical press of that country teems with discussions about, suggestions for the treatment of, and reports concerning the complaint. How things are in our own country we know only too well. In Philadelphia the disease has prevailed so extensively that probably one-half the inhabitants have suffered with it.

The contagiousness or infectiousness of the affection has by no means been satisfactorily proved. One member of a family may be ill, while the rest enjoy perfect immunity. While, in other instances—and this seems to be frequently the case—whole families are stricken in rapid succession. "La grippe" shows no predilection for either age or sex, although in Austria it is claimed that very old persons have escaped its ravages. The incubation period seems to be two days, according to the experience of

many observers; although in a large number of cases the malady has appeared to develop within a few hours. The symptoms as observed in this country are identical with those noted in Europe. Three varieties are recognized and may be classed in the following symptomatological groups: First, those with purely nervous symptoms, such as headache and lassitude, with pains in the limbs and trunk, without disturbance of the respiratory or alimentary tract. Second, the bronchitic type, in which bronchial catarrh, and sneezing, continue for several days after the initial fever has subsided. Third, the gastritic form: the principal symptoms of which are catarrh of the alimentary tract, sometimes accompanied by nausea or vomiting. A very high temperature usually accompanies both of these varieties. Besides these symptoms, others have been noted, such as giddiness and hyperæsthesia.

The complaint is very often accompanied by deep mental depression, the patient feeling intensely ill and prostrated out of all proportion to the apparent gravity of the lesions.

There are also marked points of resemblance between the present epidemic and dengue fever, which has lately been raging in Constantinople, Smyrna, and other Turkish cities; and Professor Leyden, of Berlin, is of the opinion that the former has sprung from the latter, and Professor Nothnagel, of Vienna, lays great stress on its miasmic character.

In most cases of the disease the temperature rises rapidly to 103° or 105° F., this rise being often preceded by a chill. The temperature continues high for about two days, then falls rapidly. The duration of the febrile symptoms is generally three days —rarely five or six days. The period of convalescence is very variable, and seems to depend largely upon the intensity of the attack. Some persons feel ready for work as soon as the fever has subsided, others are unfit for any exertion, feel wearied and depressed, and suffer from catarrhal or nervous symptoms for several days or weeks after. Relapses are not uncommon.

As regards treatment, as might be expected, a large portion of the pharmacopœia has been used, but the best results have been obtained by liberal doses at the outset of antifebrin, antipyrin, or quinine; the former seeming to be most effective. In Germany the same drugs have been used with success. In France, it has frequently been necessary to administer hypodermic injections of caffeine and ether on account of the alarming symptoms. Complications are fortunately rare, although several cases resulting in catarrhal pneumonia have been reported.

A complete history of this epidemic would be a valuable addition to medical literature, but it cannot be written until the disease has passed away. In Berlin, however, a committee of highly reputed physicians has been formed for the purpose of tabulating statistics of the epidemic in that city, and it might be well if similar organized efforts were made in every place where it has prevailed.

RESTORATION OF RESPIRATION.

Fifteen years ago the attention of the present editor of the REPORTER was called—while assisting Dr. Isaac Ott in physiological experiments—to the rapidity with which resuscitation of profoundly narcotized animals could be effected by the application of a painful electrical current to the side and tip of the tongue; and ever since in practice and precept, he has endeavored to demonstrate the fact that, in failure of respiration due to obtunding of the respiratory centres, the chief use of electricity, and in most cases the only use, is attained through its power to excite deep reflex inspiration by means of painful impressions on the nerves of common sensation. Again and again, in hospital practice have opportunities occurred to test this in cases of opium poisoning; and there can be little doubt that the principle is a correct one. Nevertheless—as in many

cases—it has seemed as if the profession failed to appreciate, or appreciating did not share this opinion, and teachers and writers have continued to give instructions which indicate that they believe the rapidly interrupted Faradic current, applied in a manner intended to reach the phrenic or pneumogastric nerve, may be useful in an attempt to resuscitate a person subject to non-mechanical apnœa, by provoking rhythmical contraction and relaxation of the diaphragm. How this could possibly come about, we believe no one has ever undertaken to explain. Had such an undertaking been begun, it would probably long since have led to such a demonstration of the impossibility of securing the result by the means suggested, as has been made recently by Drs. Hare and Martin in the *University Magazine*, and to such abandonment of the time-honored injunction as is recommended in an Editorial in the *Medical News*, December 28, 1889, on the resuscitation of persons who have stopped breathing.

With some exceptions, we can recommend to the readers of the REPORTER the suggestions of the Editorial referred to, which apply to chloroform or ether narcosis more especially. The plan which we would approve is as follows: In chloroform or ether asphyxia or apnœa the body should be freed from binding clothing; the mouth should be freed from mucus or any foreign substance; the neck should be extended, but not bent backward; and the angle of the jaw may be pressed forward so as to carry the root of the tongue away from the posterior wall of the pharynx. It must then be ascertained—and not taken for granted—that there is actually a clear passage for entrance of air to the lungs, either by way of the nostrils or by way of the mouth. This very important matter has sometimes been neglected in the haste and alarm following an accident. The institution of artificial respiration by Sylvester's method should follow, with simultaneous elevation of the legs, by flexing the thighs at a right angle to the pelvis, or even by elevating the pelvis also. With this, it may be necessary to give some internal stimulants; and for this purpose nothing is so rational or so likely to act promptly and powerfully, when it is actually needed, as an intravenous injection of about a fluid drachm of a mixture of equal parts of aqua ammoniæ and pure water, as recommended by Dr. Gaspar Tinwold, more than ten years ago. The use of whiskey under these circumstances is not advisable and that of ether—which is often given hyperdermically—is absolutely dangerous.

An intelligent and composed following out of the plan we have just described, will probably never fail of success where success is fairly to be anticipated. But it may be that something more will seem to be called for; and in such a case a Faradic battery may be brought in play, using one pole on almost any part where the nerves of common sensation are plenty, and the other not far from it, with the wire brush attached. In this way a powerful excitation of the terminal filaments of the sensory nerves can be set up, and all the effects of local stimulation and heat can be secured in addition to those of profound sobbing respiratory movements.

With this, we believe our readers have every means of resuscitation which is of proved value in the accidents of chloroform or ether narcosis, or in poisoning with any narcotic drug or noxious vapor; whenever the cessation of respiration is not caused by a mechanical attack in the respiratory apparatus, but to benumbing or exhaustion of the respiratory centres, the principles governing the case are the same and those governing the manner of treating it are what we have just described.

The death-rate in New York city for 24 hours up to noon January 3, was 220, an almost unprecedented record. Pneumonia and consumption led in the list of causes of death.

A NEW ANTISEPTIC DRESSING.

For some years past Sir Joseph Lister has been actively engaged in searching for an antiseptic agent, which, while being as efficacious as corrosive sublimate, should be free from its irritating and toxic properties. Such a preparation he now claims to have found in the double cyanide of mercury and zinc.

The first step in this direction was taken five years ago, when Lister presented to the Medical Society of London, a preparation of corrosive sublimate dissolved in blood serum. Gauze treated with this preparation was termed "sero-sublimated gauze." This dressing was much less irritant than those of corrosive sublimate, and gave very good results. Yet it had its drawbacks. It was but slightly absorbent and of a somewhat harsh texture. Then again, the material from which it was prepared—the serum of horses' blood—was difficult to obtain in large quantities. Its use was therefore abandoned.

It was then discovered that if chloride of ammonium, or sal-ammoniac, were added to the sublimate, the preparation was more fluid and more miscible with blood serum than the sublimate alone, while the antiseptic properties of the latter were in no wise impaired. Gauze treated with this combination of bichloride of mercury and sal-ammoniac—which has been long known to chemists under the name of "sal-alembroth"—yielded excellent results at first; but a most serious drawback was soon discovered. Owing to the extreme solubility of sal-alembroth, it was too easily washed out of the dressing, the antiseptic property of which was soon lost. Another disadvantage dependent upon its great solubility was, that when any discharge entered a mass of the sal-alembroth dressing, it dissolved out the alembroth, passed into another part of the dressing, and there took up another portion of the sal-alembroth, and so went from part to part of the dressing, until, if the discharge was copious and the dressing large, before the latter got to the edge of the dressing it became so concentrated a solution of sal-alembroth as to be highly irritating, and even to produce blisters.

In 1886 Lister turned his attention to the cyanide of mercury as an antiseptic, but found it untrustworthy. Later the biniodide of mercury was tested, and lastly the double cyanide of mercury and zinc.

The double cyanide was subjected to the most searching tests, and proved to be a most admirable antiseptic, and free from all irritating properties. The method of preparation which gave the best results was as follows: A moderately strong solution of starch is mixed with the double cyanide and a quantity of pounded sulphate of potash is added. The material thus obtained is dried and easily reduced to an impalpable powder, which diffuses readily in water, and can be distributed uniformly through gauze. When mixed with a large quantity of water, in order to charge the gauze, the sulphate of potash is practically gotten rid of, and if any of it remains it does no harm, because it is inert. Instead, however, of diffusing the preparation in water, it is better to use a 1 to 4,000 solution of bichloride of mercury, which does not interfere with the process. This is necessary, as the double cyanide, although very efficient as an inhibitor, cannot be trusted as a germicide. For the same reason, the dried double cyanide gauze should be immersed in a 1 to 4,000 solution of bichloride of mercury before being used by the surgeon. Other articles as well as gauze may be charged with this substance. The double cyanide being perfectly unirritating, there is no objection to having an excess of it. If some of the preparation be stirred up in water, so as to produce an opaque liquid, linen rags may be dipped into it and then placed in a folded towel to take out the excess of liquid, and there is a dressing prepared for immediate use.

Lister has discovered that the double cyanide requires about 3,000 parts of blood

serum to dissolve it. If, therefore, it is present in gauze in the proportion of about three per cent., it will be easily understood that blood serum may soak through the gauze, repeatedly, without washing the ingredient all out. It is a material which may be stored up in a dressing. This is one of its three great advantages, the others being that it is trustworthy as an antiseptic, and completely unirritating. In actual practice, the few layers placed next to the wound are washed in a solution of carbolic acid, 1 to 20. This washes out the corrosive sublimate, which, though present in a small amount, might irritate the wound to some extent. The carbolic acid soon evaporates, and there is left in the application next to the wound, merely the unirritating double cyanide. Under this it has been found, not only that wounds, the edges of which are brought accurately together, unite beautifully by first intention, but also that granulating sores heal by the gradual process of cicatrization from the edges—heal by scabbing, in a way which Lister claims never to have seen so satisfactory under any other dressing.

There is another use for this material besides charging dressings. The powder, moistened with a weak solution of corrosive sublimate, may be rubbed into hairy parts, when it will convert the hairs into an antiseptic dressing.

The method thus briefly outlined is fully described in the *British Med. Journal*, November 11, 1889, where Lister gives an account of a number of cases in which he applied it with satisfactory results.

Causes of Leprosy.—According to some old Hindoo medical works, the principal causes of leprosy are said to be as follows: Sleeping in the daytime; eating when the appetite is not keen; gluttony; eating too much of new rice, curd, fish, salt, acids, treacle and cakes; drinking cold water when fatigued or suffering from fear; excessive physical exertion after meals; drinking liquors; insulting a Brahmin.

Correspondence.

The Country Doctor's Life.

To the Editor.

Sir: Some time ago I read a letter in the Reporter on the Life of a Country Doctor. It was of great interest to me, as I am one myself, and I saw in it just what I see every day. The city physician has a great many more advantages than we do. No mud, no high waters to contend with, no long rides of ten, fifteen, twenty miles, over mountains and across rivers, and often having to get down and lead his horse where he cannot ride, no having to spend the night at some cabin with one room and a family of eight or ten people in the same room, sleeping often in a chair or across the foot of the patient's bed—both of which I have often done.

Some months ago I had a very bad case, and was called out about 11 P. M., and had to spend the night in a log cabin. When I got there I found the room full of people, whom I put out. The patient was very sick, and I had to work with her for hours. The room was 8 by 10 feet, with two beds. The ventilation was good, as there was a large fireplace in the room, and it had two windows and a door—one window with four panes of glass out and rags stuffed in their place. I slept that night for one hour in a chair before the fire. I have had cases of "the fever," as it is called here—that is typhoid fever, five or six in number in one room, in which the cooking, sleeping, eating, and sitting of the family were done. What did I do? I made the well ones camp out of doors, and then made a hospital ward, after a fashion, of the sick-room. What is a country doctor like? the city physician will ask. He is dressed in corduroy trousers, and in the cold regions, some thick heavy coat with an overcoat (storm-coat is the best), and he has an oil-cloth cape strapped on his saddle. He wears heavy flannel shirts and a corduroy cap. His trousers are stuffed into his leather or gum boots *all the time;* he has a good heavy pair of gloves, large-sized saddle pockets, a pocket case of instruments, two clinical thermometers, a hypodermic syringe, and his pockets full of bandages and other things too numerous to mention. He must be prepared for anything, and do the best he can. He must have a good horse; and here, where the rivers are often very high,

the horse must be a good swimmer, or the doctor will be a Baptist soon.

The doctor's life here is a very hard one in the winter; but in the spring, summer, and fall I like it.

Another thing we have to contend with—as our city brothers do, too—is collecting. The country doctor has the worst of it, though; for he has to furnish the medicine when the city doctor writes the prescription. Filling prescriptions from the saddle pockets makes the hole in some doctors' pockets; but our country patients don't seem to consider advice worth any pay, but about medicine they ask, "What is this worth?" Pulling teeth is another thing the country doctor has to do, and he must take his forceps with him; young doctors take two pairs, one for the front teeth and one for the back, but they soon learn to use the same pair for upper and lower teeth, and find that a log, or a stump, or rock on the side of the road, is a good place to pull, with a little water in his hat, to cleanse the mouth after pulling.

Everybody knows the country doctor. He is known for miles around, and he has to go for miles around, whether he is paid or not. What is his bill of fare at the many places he has to put up? His horse generally gets plenty of feed, and that the doctor must see to, for he must, as I have said, have a good horse. But the doctor gets such things as fat meat, heavy bread, and the best cow's milk, poor, weak coffee, and now and then up here bear's meat. When he sits down to the table the host says: "Help yourself, doctor," and all "pitch in."

I am a single man; but I advise all young doctors, *if they can*, to get themselves a wife, for it is hard to come in late at night, cold, tired and hungry, and to have to kick around and get what you can, or perhaps go to bed hungry and cold, in a bed which may not have been made-up for weeks. Such is a country doctor's life. It is mine, any way, and perhaps many others will or can say it is theirs too.

Yours truly,

A Country Doctor.

West Virginia,
Dec. 7, 1889.

The government of Chili has had a committee of engineers examining the water-works of the principal European cities, with a view to establishing similar works, on a large scale, in some of the Chilian cities.

Notes and Comments.

Boxing the Ears and its Results.

We would fain hope that, in deference to repeated warnings from various quarters, the injurious practice of boxing the ears, once common in schools, is fast and surely becoming obsolete. It is too much to say that this desirable end has yet been realized. Certainly the recent observations of Mr. W. H. K. Stewart do not give color to any such view. In a pamphlet on "Boxing the Ears and its Results," lately published, and referred to in the *Lancet*, Dec. 21, 1889, he briefly summarizes his own experience in the matter. Notwithstanding the toughness of the aural drum-head, its tense expanse will rupture only too readily under the sudden impact of air driven inward along the meatus, as it is in the act of cuffing; and Mr. Stewart shows that in one instance at least this injury resulted from a very slight though sudden blow. Given early and skilled attention the wound may heal very kindly, but if the beginning of mischief be overlooked, as it often has been, further signs of inflammation soon follow, and a deaf and suppurating tympanum is the usual result. There is practical wisdom in the statement that this consequence most readily follows in the case of the poorly developed and underfed children who abound in every Board school. In them an earache would probably receive no very strict attention, and disease might for a time work havoc unimpeded. Where chronic suppuration exists already, and it is only too common, a random knock on the ear may, and has resulted, in fatal brain complications. The close connection between ear and brain should never be forgotten, and the reflection that injury to the former organ most easily terminates in total deafness, and in suppuration which may any day take a fatal course, should assist in the preservation of a sometimes difficult patience.—*Lancet*, Dec. 21, 1889.

Hospital Saturday in New York.

No organized philanthropy is more absolutely non-sectarian than that of the New York Hospital Saturday and Sunday Association, which undertakes, on the last Saturday and Sunday of the year, to receive, in all the churches and synagogues, money for the support of 27 city hospitals. The money

thus collected is divided among the hospitals on the basis of the free work performed by them during the preceding year in behalf of the suffering poor. During the past year the associated hospitals cared for 13,579 bed patients, of whom 10,106 were free, besides operating upon or giving other necessary medical aid to 128,703 free dispensary patients. According to the reports from the hospitals of New York, the total expenses for this work during the past year were $734,372.87. To cover this outlay there was an income from invested funds of $129,287.40, an income from paying patients of $182,239.94, an income from the city of $29,753.28, leaving the large sum of $393,092.25 to be raised from the benevolent public.

A Novel Museum.

A "psychological museum" has recently been established at Florence by Ministerial decree. The museum, which is to be under the direction of the well-known ethnologist, Professor Mantegazza, is intended to be a collection of what M. Zola calls "*documents humains*," or, in the words of the official announcement, of all things "which may serve as illustrations of human passions." If this programme is strictly adhered to the new museum will have at least the merit of infinite variety; it will be a chamber of horrors, an Eden Musée, a pathological museum and a Scotland Yard museum all in one. Lectures on "experimental psychology" will, it is stated, be delivered. It appears, says the *British Med. Journal*, Dec. 21, 1889, that a society for the cultivation of this last somewhat occult department of science has been in existence in Berlin since January 31, 1888. It devotes itself mainly to the study of hypnotism.

Cruel Treatment of the Insane.

Serious charges, relative to the treatment of insane patients, have been made against the management of a poor house near Wheaton, Ill. The Governor of Illinois ordered the investigation of those charges, and the work of taking testimony was begun January 2.

It is claimed that two insane female patients were kept in zinc-lined cells, about seven feet square, with no beds, bedding or even the necessary conveniences; that these cells were allowed to become filthy and remain so for days without being cleaned, and that they were allowed to remain absolutely naked.

The Assistant Secretary of the Illinois State Board of Charities has testified as to the results of an examination made by him. He said he found the women in zinc-lined cells, seven by seven and a half feet, filthy in the extreme and without conveniences. A former attendant testified that there were no female attendants; that the women tore their clothes off and remained naked in their cells; that he bathed them once a week and cleaned out their cells once or twice a month. Another witness testified that he had seen one of the patients fed. Her hands were tied behind her and, as the food was placed on the floor, she was obliged to get down and eat it like a dog.

The management has admitted that the insane patients were not as well cared for as they should be, but claims that it was the best that could be done.

Heads of German Soldiers.

At the recent meeting of the Congress of German Men of Science and Physicians at Heidelberg, Mr. O. Ammon submitted to the Anthropological Section some interesting results of observations he had made in Baden. The observations related to 5,000 soldiers. The tall men had generally long skulls, or skulls of medium length, whereas the short men had round skulls. Most of the round-skulled men came from the Black Forest; the long-skulled usually belonged to the valley of the Rhine, and were especially numerous in towns and in the neighborhood of the castles of ancient families. From this fact Mr. Ammon concluded that the round-skulled men had been the original inhabitants of the Rhine valley, that they had been driven from it by long-skulled invaders and that the latter had established themselves near the settlements of their victorious leaders.—*Nature.*

Regulations against Leprosy.

The President and Secretary Windom, in view of the fact that leprosy is prevalent in several countries with which the United States has constant commercial intercourse, have issued regulations to keep out the disease as follows:

1. Until further orders, no vessel shall be admitted to entry by any officer of the customs until the master, owner, or authorized agent of the vessel shall produce a certificate from the health officer or quarantine officer at the port of entry, or nearest United States quarantine officer, that no person affected with leprosy was on board the said vessel when admitted to free pratique, or in case a leper was found on board such vessel, he or she, with baggage, has been removed from the vessel and detained at the quarantine station.

2. Medical officers in command of United States Quarantines are hereby instructed to detain any person affected with leprosy found on board any vessel, but such officer will permit the departure on outgoing vessels of persons detained at quarantine in pursuance of this regulation, provided such vessel shall be bound to the foreign country from which the said leper shall have sailed.

English Practitioners in France.

The *Nice Gazette* makes a very lame attempt to justify the illiberal action of the French Government in refusing to grant permission to English medical men to practice in places resorted to by the English. It states that a French examination having to be passed, English residents may feel sure of the competence of those who henceforth seek to practice there. This, says the *Lancet*, Dec. 21, 1889, is a poor compliment to English examining bodies, and not an argument likely to weigh with English people, who will certainly be apt to try home resorts much more freely.

A "Strike" among Medical Men.

Medical men are generally so "easy to be entreated," and so ready to yield to any call of urgency, that the public has come to think itself entitled to their services as if they were under some compulsion to be at everybody's beck and call. But in these days of strikes this notion may have to be reconsidered. The *Lancet*, Dec. 21, 1889, states that at Rodez, in France, the medical men, backed by the Medical Association, refused to make a *post-mortem* examination of the body of a young woman found in a field, on the ground that the fee allowed was too small. For more than a week the body remained unexamined, and some suspected prisoners had to be released in the absence of confirmatory medical evidence. Some of the doctors have been fined for their behavior, but are appealing to the Cour de Cassation. The question has been discussed in the French Senate, who find they have no more power over doctors than over pitmen, if they use no violence and break no law. No body of men have such good reason for combining as medical men, and none could inflict more effective vengeance on those who underrate their services. But it ought to be possible to bring the public to a better appreciation of our deserts without the arbitrament of a "strike."

A New Micro-organism in Milk.

Dr. Adametz, assistant at the High School of Agriculture, of Vienna, has discovered a new micro-organism by whose action the milk becomes viscid. It is a micrococcus embedded in a mucilaginous substance.—*Lancet*, Dec. 14, 1889.

Physicians Duty towards the Insane.

Some time ago, Dr. Horatio C. Wood wrote to the District Attorney of Philadelphia relative to a specialist's duty towards certain cases of insanity; and cited the case of an artist of ability, who, although entirely sane to outward appearances and in ordinary conversation, and one whom a jury would decide to be sane, was, however, in reality a dangerous lunatic. This patient would in all probability, if allowed to roam at large, commit murder sooner or later. There was no one to take care of him or protect him from himself, or the community from him. Dr. Wood asks what the specialist's duty is in such cases. Under the date of January 1, 1890, the District Attorney replied that the question is not one free from difficulty. If the person believed to be dangerously insane has proper care-takers, the specialist is bound merely to urge those in whose charge the person may be to have him securely confined. But, where the insane person is without suitable care-takers, or having care-takers who, through ignorance, or affection, or from any other cause, are not willing to comply with the advice of the specialist, then it becomes the specialist's duty to notify the Director of Public

Safety, giving him the name and address of such dangerously insane person, accompanied with such a statement of facts as will enable him to act intelligently in the case. It would then become the duty of the Director of Public Safety to cause the arrest of such insane person, and, after a proper examination of him, cause him to be confined in an asylum until cured.

Worthlessness of Sulphur Fumigation.

It appears that the prevailing method of disinfection by means of burning sulphur is considered by some of the leading bacteriologists as of less value than it has heretofore been considered. Dr. J. G. Johnson read a paper before the Kings County Medical Society on Dec. 17, 1889, in which he stated that he had proved the present system of fumigation as worthless for the destruction of disease-germs; that the fumes of burning sulphur do not penetrate woolens as disease-germs do. He also stated that he had propagated diphtheria from the clippings of blankets after they had undergone a thorough process of fumigation by burning sulphur. Dr. Prudden, of the New York City Board of Health, appears to have come to the same conclusion, and in both New York and Brooklyn currents of steam are recommended for disinfecting purposes instead of burning sulphur.—*Medical Record*, Jan. 4, 1890.

Electric Lights at the New York Hospital.

On Christmas Eve the New York Hospital was lighted, for the first time, by electricity, consisting of 700 incandescent lamps. The effect was truly brilliant and heartily appreciated by the patients, for the walls and corridors were also tastefully decorated with garlands of holly and evergreens. Apart from the improved sanitary condition of the hospital secured by the abolition of gas, a much better and safer light is afforded for night operations, and the outfit for the operating-rooms includes a series of movable reflectors which will enable the surgeons to perform operations at any hour of the night with the same facility as by daylight. On this occasion the Children's Ward was especially attractive, for it contained a huge Christmas tree brilliantly lighted, the boughs of which were laden down with gifts, not only for the children, but also for the hospital physicians and nurses.

Jefferson Classmates of 1878 Dining.

The second annual banquet of the class of '78, Jefferson Medical College, was held at the Hotel Bellevue, Philadelphia, Dec. 20, 1889. Among the gentlemen who responded to toasts were Dr. A. H. Hulshizer, Dr. Chas. W. Karsner, Dr. Lambert Ott, Dr. J. A. Wamsley, Dr. Jno. C. Da Costa, Dr. H. H. Drake, Dr. H. A. Braus, Dr. J. Moore Campbell, Dr. James Lincoln, and Dr. E. T. Wilhelm.

Out of 205 members who graduated in 1878 one hundred and forty are known to be still engaged in active practice; sixty-five have failed to respond to letters of inquiry, and it is feared that the greater number of these have died.

The President, Dr. L. Webster Fox, appointed Drs. J. Moore Campbell, Ott, Wamsley, Braus, and Hulshizer, a committee to arrange for the third annual banquet, to be held November 19, 1890; and they will be glad to hear of any of their classmates who have not been reached by the notification already sent out.

Quebracho in Bronchial Asthma.

In the *Novosti Terapii*, Dr. Vladimïr M. Krütovsky, of Krasnoiarsk, Siberia, relates an exceedingly severe and refractory case of bronchial asthma (in a woman 30 years old), in which, after morphine, hydrate of chloral, cocaine, iodine, bromine, atropia, pyrodine, and other usual anti-asthmatic means had failed to afford any amelioration, he prescribed quebracho in the following combination:

℞ Decocti quebracho ext. . . . f℥ iij
Potassii iodidi . . . . . ℈ ij
Tincturæ opii benzoicæ . . . f℥ ij
M. D. S. A tablespoonful every two hours.

The paroxysms rapidly ceased. On discontinuing the mixture, however, they returned, though in a very mild form. After two or three doses the symptoms again vanished without trace. Not a single attack occurred during the subsequent six months (up to the date of the communication), the patient apparently continuing to take the medicine all the while.—*London Med. Recorder*, Nov. 20, 1889.

NEWS.

—Dr. John S. Stewart has removed to 1716 Chestnut street, Philadelphia.

—Professor Leyden has been summoned from Berlin to a consultation with the Czar's physicians.

—Dr. William Barton Hopkins has removed to 1904 South Rittenhouse Square, Philadelphia.

—The cholera epidemic in and round Bagdad is stated to be raging there more violently than ever.

—Dr. C. H. Navols, Superintendent of the Bloomingdale Insane Asylum, in New York, died Dec. 16.

—Dr. Joseph Hugg, for many years a surgeon in the United States Army, died suddenly of heart disease at the Colonnade Hotel, Dec. 24, aged about fifty years.

—The Howard Hospital, in Philadelphia, was temporarily closed January 3, because the physicians, matron, druggist and three nurses were suffering with the prevailing epidemic of "grippe."

—A bill has been introduced in the Legislature of the State of New York incorporating the People's Co-operative Medical Association of Brooklyn, which is to furnish cheap medical attendance and medicine. Capital, $1,200.

—On Dec. 11 the Berlin Anthropological Society presented its President, Professor Rudolph Virchow, with a bronze medallion portrait of himself by Anton Scharff, in remembrance of the foundation of the Society twenty years ago.

—Diphtheria is raging at the Russian settlements in Edmund and McPherson counties, South Dakota. Thirty deaths have already occurred. One farmer lost six children, and another is said to have buried four children in one grave.

—One of the two cases of fever which arrived in New York two weeks ago, and were transferred to North Brother Island by the Health Department, is undoubtedly a case of typhus, but the other has not declared itself and is still under observation.

—A new addition to Roosevelt Hospital, New York, is to be built shortly. Recently the hospital managers received $350,000 from the estate of the late W. J. Lyons of New York, for the erection of a new building. For some time past the demand for a new operating-room has been very great, and the new building will be utilized for that purpose.

—The American Physiological Society ended its annual meeting, held in New York, in the College of Physicians and Surgeons, December 29. The following council was elected: H. P. Bowditch, F. G. Curtis, H. N. Martin, S. Weir Mitchell, and H. H. Donaldson. The management is vested in this council; and the council appoints from its members a president of the society, and a secretary.

—Dr. Cyrus Edson, of the Board of Health, has a patient on North Brother Island, isolated and closely watched, the fear being that it is a case of typhus fever. Dr. Lester gave it as his opinion on Dec. 26, that the case was one of typhus fever, and the patient was removed to North Brother Island; should it turn out to be so, the Health authorities would lose no time in taking steps to stamp out the disease.

—The contractor who supplies the condensed milk for the Department of Charities and Correction of New York City and all the hospitals and institutions on the islands, in all about 300,000 quarts annually, has been arrested, charged with furnishing milk not up to the requirements of his contract. The chemist who examined the milk furnished reports that, instead of the 14 per cent. of fat provided for by the contract, it only contained 8½ to 10 per cent.

—An epidemic of typhoid fever, attended with many deaths, has raged in the northern portion of Berks county, Penna., for several weeks. On January 2, the citizens of that section sent a complaint to Reading, saying that "many cattle have died from the prevailing contagious cattle disease, and that some of the dead carcasses were thrown into Maiden creek and are now floating down stream." This is the stream along which Reading has erected a pumping station and arranged to get the supply of water for household purposes in a few weeks.

—The trustees of the New York Presbyterian Hospital, which was burned a few days ago, discussed the question of a new building at a recent meeting. John S. Kennedy, the President, announced that "a friend of the hospital" would give $250,000 towards the new building provided $250,000 additional could be raised, thus making $500,000 in all, or enough to put up a building to accommodate 250 to 300 patients. The generous "friend" is believed to be no other than Mr. Kennedy himself. Two new wards were opened at once in an annex not injured by the fire.

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Clinical Lectures.

TYPHOID FEVER, DYSENTERY, ASTHMA.[1]

BY ARTHUR V. MEIGS, M. D.,

VISITING PHYSICIAN TO THE PENNSYLVANIA HOSPITAL.

Gentlemen: This patient, a young girl, 18 years of age, single, and a domestic, was admitted to the hospital on the twenty-eighth day of September. There is not much to be learned from her family history beyond the fact that her mother died of consumption. When a child she had scarlet fever, and three years ago she showed some disposition to sore throat. As you see, there is nothing very special in her past history. Her present illness began three weeks before her admission, which was one week ago to-day. It came on with a chill, which was followed by a cough and expectoration, fever, headache, diarrhœa and stiffness of the legs. She had excessive sweating at night followed by weakness and cold sensations in the morning. Her nose had bled once or twice during this period.

On admission her temperature was $102\frac{1}{5}°$, the next morning 103°, and that evening $103\frac{4}{5}°$—a temperature, rising, as you will notice, since admission. It then fell, and has since zigzagged between $99\frac{1}{2}°$ and $101\frac{1}{2}°$. This morning it is normal—$98\frac{2}{5}°$. This does not mean, however, that the fever is broken; for it would then probably have fallen to a subnormal point. It will probably rise again to-night. Her tongue on admission was pale, flabby and tremulous; her circulation was poor, and her respiration jerky, with a slight expirating grunt. Her hands were also tremulous. She complained of pain in the lower part of her chest, especially on coughing. A physical examination, made a week ago,

[1] Delivered at the Pennsylvania Hospital.

gave the following results: Heart, negative, with the exception of a slight anemic murmur; lungs, anteriorly, filled with crackling râles, numerous and loud; posteriorly, some dulness at the right base; the spleen and liver dulness was marked by tympany; the belly was full and tympanitic and showed some rose-colored spots; the urine contained a trace of albumin.

To-day her expectoration is thick and ropy, but not at all greenish in hue, nor has it been nummular, as in phthisis. It is very viscid, so that when the cup is inverted it does not run out. Her tongue is slightly marked by the teeth, is tremulous, pale and moist, with a slight coating. It has not been dry at any time since her admission to the hospital. Her heart to-day reveals no departure from the normal condition, with the exception of a slight anemic softness in the first sound. Percussion resonance anteriorly is full and good, and equal on both sides. The respiratory murmur is good and clear. There is even good vesicular expansion, but there are some slight cooing râles on the left side, and none on the right. Posteriorly, at the apices, the percussion note seems good, and equal on the two sides. In the middle it is also fairly good and equal, but at the bases there is a difference. There is some impairment of resonance on the right side. On auscultation, the respiratory sounds are fairly good, with occasional faint cracklings here and there, which are decided at the right base. The abdomen is full, tympanitic on percussion, generally of a rather dusky hue, in fact she is slightly cyanotic, and there is a rose-colored spot here, which, however, is not typical. This, gentlemen, is the history and present condition of our patient.

Now our first duty is to make a diagnosis. We have here a woman whose previous history furnishes no special clue. She was a domestic in a boarding-house and worked until the day before her admission, when she was turned out-of-doors, and found her way here in the condition which I have described. On entering, she was placed upon five-grain doses of carbonate of ammonia every four hours, and eight grains of quinine a day, in two doses.

There are two methods by which we make a diagnosis: first, from observation of the clinical symptoms alone; and, second, by inference, excluding first one disease and then another until finally we fix upon one which seems to be that before us. In this case there was much to be learned from observation. It was easy to observe that the patient had bronchitis, with slight acute catarrhal pneumonia—not acute croupous pneumonia, but one of those slow, creeping pneumonias where there is an exudation of cells rather than of fibrinous material. It would be easy, then, to say that this was an attack of broncho-pneumonia. But we go farther than this, and ask: Is there anything else? In my opinion, there is. The woman had, and has, typhoid fever, in addition to her lung trouble. I think she would by this time have been better, or worse, if she had her pneumonia alone. If you remember, she had some diarrhœa the day before admission, and has had some since. So, in addition to our actual observations about her lungs, we have this inference to aid us. It was difficult to decide at first, and it was only after two or three days that we arrived at the conclusion that this woman has typhoid fever.

There is usually more or less bronchitis in typhoid fever. From the nose-bleed, diarrhœa, and rose-colored spots, and from the condition of her tongue and the marked nervous symptoms she presented, we diagnosticated typhoid fever. She has been stupid and dull and careless since admission. We do not find this condition in simple bronchitis, but it is peculiarly characteristic of typhoid fever.

In regard to prognosis, I need not say much, for she is improving considerably since her admission. If care is taken at the outset the patient has more chances for recovery. The principal thing that threatened this woman's life was the condition of her lungs, and this we treated at once with carbonate of ammonia and quinine. We do not give stimulants as much to-day as we used to do. If the patient holds her ground, we do not give any. This patient received stimulants only for twenty-four hours.

I now want to say a word or two upon the pathological lesions of typhoid fever. We are commonly taught that typhoid fever is a disease of the intestines, that the peculiar lesion is an ulceration of the ileum beginning at the cæcum and extending upwards indefinitely, involving few or many of the Peyer's patches. All this is very true; but if we stop here, it seems to me we have a very inadequate knowledge of the disease. We hear now of germs and of their influence in disease. We have been taught that these germs can be recognized by their ap-

pearance—a fine microscopic lens being the only requisite. But now we are told that we must have pure cultures of them before we can recognize them. This seems to indicate a point of weakness somewhere in the ground assumed by bacteriologists. It is also said that there must be a soil fit for them to grow in: otherwise they will not produce their specific effect. All this, it seems to me, goes to prove that the influence of bacilli in disease is over-estimated, and that they are not of so much importance in the production of disease as is claimed for them. Now, if we accept the bacillus theory of typhoid fever, and look in the intestines for the bacilli, and treat the intestines alone, it seems to me we fail in our object; for, in my opinion, we must treat our patient with reference to the part most involved, which, in this case, is the lungs.

I have here notes from two autopsies made recently on patients who died here of typhoid fever. It is interesting to note the lesions found. The lungs showed unmistakably a considerable degree of catarrhal infiltration, and the whole lung seemed turned into pools of blood. I have no doubt that this was the condition in this woman. Then the kidneys were not structurally changed, but the cells were in a bad state, or, as Virchow calls them, in a state of "cloudy swelling." The mesenteric glands were all enlarged and almost in a state of suppuration. The spleen also was enlarged and in a state of cloudy swelling, as was also the liver. The heart showed a slight degree of endocarditis, and its muscular fibers were in a condition of brown atrophy: a granular condition with a destruction of the striæ. Now, considering all these points, would we not make a great mistake to treat these patients as if the disease was of the intestines alone? I believe that we would.

Dysentery.

This man, aged 24, was admitted on the sixteenth of September. He is a gardener. His mother died of heart disease. He uses tobacco and whiskey moderately. One month before admission he had a diarrhœa for four days. His present trouble began five days before entering the hospital, with diarrhœa attended with frequent evacuations, tenderness over the belly, free blood in the stools, and, on admission, retention of urine. His temperature was 101°, his pulse was 100. The result of a physical examination was entirely negative. He had on his belly the "*taches bleuâtres*," large spots, blue in color, which do not disappear on pressure and are said to be characteristic of typhoid fever. Murchison says they are quite common. However, they had no bearing on his condition, as he had no typhoid fever. I do not think they have any diagnostic value, at least in this country.

The diagnosis here was plain enough. He had dysentery. He was placed upon the use of an ordinary diarrhœa mixture that we use here. Every two hours he took a pill containing opium powder, ¼ grain; capsicum, ⅓ grain; tannic acid, 2 grains. After taking these for two days, he was no better. We therefore gave him a prescription which I consider very valuable. I do not know where it came from, but I believe it was used by an East Indian surgeon. The cardinal feature in treating this condition is opium, all other agents being but adjuvants to it. He was given ten drops of laudanum every two hours with ten drops of this mixture:

℞ Olei Juniperi,
Olei Anisi,
Olei Cajeputi . . . . . āā f℥ ss
Ætheris . . . . . f℥ ss
Elix. Acid. Halleri . . . . . f℥ ss
Tr. Cinnamoni (B. P.) . . . . . f℥ ii

This may be given often if required. Opium must be used in moderation, and the above dose is sufficient. It will not stupefy the patient. Larger doses do more harm than good. The patient is now almost recovered.

Asthma.

This man, 33 years old, was admitted on the 30th of September. He is a cigarmaker. His family history is negative. He does not use tobacco or whiskey. When seventeen he had an attack of rheumatic fever, and he had small-pox in 1870. He has been suffering from asthma, which formerly appeared each winter, but has troubled him more frequently of late. Last summer he had eight attacks. He has no cough between his attacks, but easily loses his breath. On admission his temperature was 97⅗°, his respiration was 30 per minute, his pulse only 62. There was no fever. His urine was normal. On auscultation to-day, his heart is normal. The percussion note on admission was hypo-resonant and his chest full of cooing and whistling asthmatic râles, with

prolonged expiration. To-day the resonance is rather high-pitched and short, and expiration is still markedly prolonged. There are signs that the asthma has produced some emphysema. Old asthmatics often present a marked degree of this condition.

His treatment has consisted in giving five grains of carbonate of ammonia every four hours, and ten drops of tincture of belladonna three times a day. At night $\frac{1}{6}$ grain of morphia and $\frac{1}{120}$ grain of sulphate of atropia was administered hypodermically. He has recovered from his present attack but we cannot guarantee him from future attacks.

MANAGEMENT OF HEMORRHAGE INCIDENT TO PLACENTA PRÆVIA.

BY HERMAN C. BLEYLE, M. D.,
OF NEWARK, N. J.

Gentlemen: The subject chosen for this paper, although a somewhat commonplace one, is, nevertheless, one familiarity with which is of the utmost practical importance.

I will therefore give a few experiences in the treatment of this most dangerous obstetrical contingency. At the outset of a discussion as to the proper procedure to which recourse should be had in cases of placenta prævia with antepartum hemorrhage, we are met with the fact that unanimity of practice among the recognized authorities is by no means the rule. In fact, the means advised range from the most risky and active procedures to the most veritable temporizing course—from venesection to transfusion. Nor are these differences of opinion confined entirely to treatment. It exists to the same degree in the explanation of the mechanism of the production of the hemorrhage, the physiological changes that are taking place in the lower segment of the uterus between the seventh and ninth months of pregnancy, and, in fact, in the very anatomy of the cervix itself. Out of the multiplicity of advice, discussion and argument, how shall we choose that proper course which each individual case of this dangerous condition demands? As a natural consequence, I have met this same uncertainty in the consulting room. There, as well as in the books, each practitioner has his favorite mode of practice, and there, too, I have seen the patient gradually become almost exsanguine before the consultants could agree on a line of treatment for her relief. Often, in our experience, have we been summoned to a patient pregnant and near term, and on reaching the sick-room find her almost pulseless and exsanguinated, with blanched and anxious countenance, appealing to us for aid, not alone for herself, but for the unborn babe as well, and to halt at such a time between conflicting views as to treatment is to imagine condition of doubt in our profession which should not exist. For this reason it may, perhaps, not be unprofitable to us if I invite you to the bedside of a few patients, detailing the treatment employed, courting your most just criticism of the same, and soliciting your views based, as far as possible, on your own experiences as to its correctness. For convenience I will arrange the cases into two classes. 1st, those occurring before, and 2d, those occurring at labor; and, in order not to tax your patience unduly, will divest them as much as possible of all minutiæ as to pulse, temperature, etc., giving only such salient points as will be necessary for the proper consideration of the case. They have been selected with the object of bringing up and inviting discussion on the following points: namely, the induction of premature labor, the proper use of the tampon, separation in whole or in part of the placenta, and rapid dilatation of the os manually or by means of instruments.

Case 1. Mrs. B., multipara, 28 years old; pregnant 7½ months. This patient had progressed favorably during this pregnancy without the occurrence of anything of note until the night of Sept. 28, 1878, when a considerable hemorrhage took place during sleep. On vaginal examination, no dilitation of the os was discovered, and the patient declared she had suffered no labor-pain, and was at a loss for an explanation of the hemorrhage. Not being entirely certain at this time that the case was one of placenta prævia, nothing further than rest and opium were prescribed. There was no return of hemorrhage until Oct. 4, on which day, while in the performance of some household duty, she suffered quite a large loss of blood. On second examination, the finger pressed through the softened os could detect a soft, thick mass between it and the child's head. Feeling quite certain now that a placental presentation undoubtedly existed,

the induction of premature labor was strongly advised. To this proceeding the relatives, however, objected, but deeming the patient's life would be greatly imperiled should any further hemorrhage take place, notwithstanding their objection I took the initiative step in inducing labor by using the tampon. The application of the tampon was followed during the night by labor-pains.

On Oct. 5, 9 A. M., the pains were quite regular. The tampon was partially forced from the vagina, and some flow had taken place during the night. The bladder was emptied by means of a catheter, and the remains of the tampon were removed. On removing a large clot of blood the os was found to be somewhat dilated, soft and dilatable. Fearing that a further and possibly a fatal hemorrhage might take place if the case was left to the natural powers, artificial dilatation by means of Barne's dilators, and delivery by version were determined on. The dilators accomplished their purpose very effectually, and the hand was passed upward, separating the placenta on one side from its attachment, the membranes were ruptured high up, the feet seized and delivery rapidly accomplished. The after-birth was delivered shortly afterwards and no further hemorrhage took place. The child was still-born, but the mother made a good recovery.

In this case, it is just possible that this patient might have passed through her labor naturally and have made as good a recovery as if premature labor had not been induced by the tampon, and rapid delivery by the other means attempted; but how are we to feel assured on that point? By waiting until our patient is almost exsanguinated by repeated hemorrhages, before we resort to these means, when their employment is attended by an immensely increased risk? Clearly not. The view held by many, namely: when repeated hemorrhages have taken place and reasonable ground exists that placenta prævia exists, either the patient's life or her pregnancy must terminate —is a good one to accept and act on.

Now as to the best means to bring about this result. When it has been decided on to induce premature labor a good plan to follow is first to employ a large vaginal douche of warm water, introduce a sponge tent and then tampon the vagina effectually with either plain or borated cotton. If the os will admit of it, I sometimes insert a common rubber finger cot, distended with cotton, and dipped in some antiseptic solution, secured by a string to facilitate its removal and hold it in place by the tampon. I prefer the form of tampon commonly denominated "kite-tailed," using Sims' speculum to facilitate its introduction. This is left *in situ* if necessary for twenty-four hours. If not followed by pains it is then removed, the bladder emptied by the catheter, and a soft rubber catheter introduced into the cavity of the uterus and a second tampon applied. This generally accomplishes the purpose. Dr. Edward J. Ill, of this city, has devised an instrument, consisting of a soft rubber cone-shaped bag which, after introduction and distention by water, he claims answers an excellent purpose, not only as an oxytoxic, but as a tampon as well. I can vouch for its utility in inducing pain, but, with all due respect for the Doctor's great medical ability, I am not enthusiastic in its efficiency as an hemostatic agent. The objection to its use is that it can only be employed after some dilatation has already taken place. The Doctor informs me he has used them in some cases with gratifying results, and after all, that is the end we are striving for. After the os is somewhat dilated, the Barnes dilators, in the main, answer excellently in completing this desired condition, and rendering the application of forceps possible, or version feasible.

In this case we also meet with a very common experience, namely, the opposition of the patient and her relations to the inauguration of—to them—so formidable a proceeding as the induction of premature labor. Nor does the opposition entirely rest with them. If your experience at all coincides with mine, you will find that the consultant physician occasionally will not accede to your views as to the necessity of the procedure, viewing it in the light of meddlesome midwifery.

Just here let me remark that, in my opinion, this term should be expunged from the text books on obstetrics. I think more lives have been sacrificed by its wrong interpretation than is generally acknowledged. I think its continued use in midwifery practice is only to furnish a screen behind which temporizing and inefficient practice seeks a refuge.

As a rule the relatives will not become convinced of the necessity of the induction of premature labor until the patient's life has become jeopardized by repeated hemorrhages. I hear some of you remark, that in such cases the physician would be justi-

fied in retiring from further professional connection when his patient will not accede to the carrying out of such procedures as the physician deems absolutely necessary for her safety. This is precisely the action I have taken in more than one of these cases. Other medical advice has assumed charge, the waiting policy carried out, and when the labor commenced and the real danger threatened, they were conveniently absent, and the responsibility that should have been assumed by them on account of the delay advised, was finally thrust on me, when nothing but vilification and damage to professional reputation was to be gained by this enforced attendance at the last juncture.

Case 2. Mrs. B., 25 years old, multipara; eighth month of pregnancy. When called to this patient I learned that she had suffered from number of hemorrhages, not alarming in quantity, excepting the one just preceding my visit. On examination, the finger could detect the placenta just inside the os. The latter was soft and dilatable. On auscultation no fetal heart could be heard. The patient felt assured that she had felt no life since the shock following the last hemorrhage. The examination had caused a still further hemorrhage, and an alarming syncope took place. On account of the suspected non-viability of the child, the extremely dangerous condition of the mother, and the lack of assistance to carry out any other procedure, separation of the placenta was decided on. The finger introduced through the os loosened as much of the placenta as was within reach. No more hemorrhage took place, and as soon as dilatation would allow, the forceps were applied and the child delivered as expeditiously as possible. The placenta followed shortly afterward. The child was stillborn, and all efforts attempted at bringing about resuscitation were unsuccessful. The mother made a good recovery.

The above case is one by no means infrequent in occurrence, in which we are called on to decide on the employment of a means which, while enhancing the safety of the mother, is very nearly certain to cause a destruction of all the chances the child has for further existence. The decision of this question, to my mind, is of such great moral responsibility, that if time would allow, I would not attempt its decision alone. The responsibility of human life is nowhere, in everyday medical practice, more forcibly thrust on us than it is in just such cases as the one narrated. How shall we be governed in finally deciding this grave question? The existence of viability or non-viability of the child as demonstrated by auscultation must, in a large measure, guide us in its decision, as well as the dangerous condition of the mother which, while often not allowing of more formidable proceedings for her relief, must also have much weight in the choice of this means of her safety. If on auscultation no fetal heart can be heard no compunction should be felt in immediately separating the placenta. But what if the opposite is the case and the child is living? I hold that if the time will not allow of the employment of those means to dilate the os, and thus deliver by either forceps or version, and if the condition of the mother will not admit of further delay, then clearly we should not hesitate, repugnant as this procedure is to us, to immediately separate in whole or part the placenta from its attachment and give to the mother the greater chance of life to which she so justly is entitled.

The teaching of the Roman Catholic Church opposes any procedure which takes from the child any chance of existence, and this opposition is carried to the extent of forbidding the faithful to allow its employment, even at the sacrifice of the mother's life. But this circumstance should have no weight with us, even among the followers of this faith. Clearly the mother has the prior right of existence and such measures should always be employed having for their object the accomplishment of her safety, that of the child being of secondary consideration. If time will allow, I prefer the methods of rapid dilatation, because of the fact that the child's chances are not so seriously abridged. However I think my experience in the management of such cases teaches me to be satisfied when I am fortunate enough to have my efforts rewarded with the recovery of the mother only. Further, in my experience in the employment of separation of the placenta I have only seen two children born living. Dr. Jas. Y. Simpson gives a table of 141 cases in which this procedure was employed, attended with the birth of 33 living children—a result which I believe will not correspond with the general experience of most practitioners.

Case 3. Mrs. M., multipara, 35 years old; in the ninth month of pregnancy. Was called to this patient on June 3, 1872,

at 10.30 P. M. The patient had had several hemorrhages, dating the first in the neighborhood of the seventh month. The losses of blood had not been large in quantity, but were of frequent occurrence. On this day, however, the hemorrhage was very profuse, and at my visit her condition was alarming. On examination it was learned that labor had commenced, the os was slightly dilated, and on searching the cavity the cause of the hemorrhages was explained by the fact that a lower lateral insertion of the placenta was presented. No pains of any account were present and absolute rest, and, internally, brandy, opium and ammonia, were prescribed. Externally, warmth was also employed. At this time it was learned from the patient that the membrane had ruptured. The administration of the stimulant was followed by some reaction, and I remained with the patient for 1½ hours in order, should pains supervene, and hemorrhage recur, I would be ready to render such assistance as the case demanded. In the meantime I sent for additional assistance, but on account of the unseasonable hour and the distance of the residence (being on the outskirts of the city), I was unable to obtain it, so I was left to cope with the case alone. About 12 P. M., pains recommenced, as did also the flow, at first slight in quantity but after the fourth contraction she had a large hemorrhage and it became very apparent that temporizing was no longer to be entertained, the labor must be terminated, and that, too, as soon as possible. I immediately brought the patient to the edge of the bed, thinking that, on account of the softness of the os, rapid dilatation and delivery by version could be accomplished; judge of my astonishment, however, when, on introducing the finger, I discovered the os entirely dilated and the vertex presenting. As a forceps operation was entirely feasible that method of delivery was chosen. Careful traction was made and the head brought well down. Congratulating myself, that now no further hemorrhage would take place, on account of the direct pressure the child was exerting on the parts involved, I would allow her a short rest before completing delivery, but at the recurrence of the next pain a terrible gush of blood occurred and my patient sank lifeless on her pillow just as the child was born. The child was stillborn.

In this case the final and fatal loss of blood took place when the child was exerting pressure to its fullest extent. Nor is this the only case in which this circumstance, namely, hemorrhage, when the child was very nearly delivered, has been noted. It is a question in my mind whether the teaching of the books is as correct on this point as has heretofore been received. The idea uppermost in our minds in the management of this variety of uterine hemorrhage, is to rely on the fact that the bleeding will finally be checked if we are only able to bring the child well down, and thus not only hasten delivery, but actually to utilize the child as a tampon. This reliance, in my experience, has received a rude shock on more than one occasion. Another case will be detailed in which the same loss of blood took place when the os was almost distended to its utmost limit by the body of the child. Now, as to the question of treatment employed in this case. You will remember this woman had suffered periodical losses of blood since the seventh month, and some hours preceding my visit had sustained a sudden large and dangerous loss, rendering her condition at the time of my visit one giving rise to great alarm. The os at that time was undilated, although dilatable. The membranes were ruptured and no flow was taking place. Should I have used the tampon? I am no believer in the employment of the tampon at, or near, term, after the membranes are ruptured and the waters evacuated, and for this reason: It is a well-known fact that damming up the mouth of the uterus by means of the tampon after the cavity has become emptied of its waters and hemorrhage is taking place, is simply to convert an open into a concealed hemorrhage. It is simply covering up the deadly process from our eyes. It is just as well known that the tampon being used, the cavity of the uterus, at term, can contain enough blood to terminate the life of the patient, and yet not one drop of blood show externally. But the advocates of the efficiency of the tampon claim that it has not only a restraining effect on the quantity of blood effused, but it has a hemostatic effect by its direct pressure exerted. In my case, could any tampon, however skilfully applied, have exerted any more direct pressure than did the child itself? Should I have immediately on my visit begun operations looking for an early emptying of the womb, or should I have done as I did, namely, as no hemorrhage was going on, wait for the recurrence of pains and hemorrhage before assuming

alone this great responsibility? I am fully satisfied that this particular case would have terminated the same, had I dilated and performed version, as it did, I leaving this natural process to go on to the extent of the few natural pains before interfering. The correct treatment this case should have received should have been instituted weeks before, namely, the induction of premature labor. It would have been much better to have terminated the pregnancy weeks before, than to have allowed it to proceed to that point when, alas, our efforts at ending the pregnancy only too often appear to terminate not only that condition, but the life of the patient as well.

Case 4. Mrs. M., 35 years old. Multipara. Ninth month of pregnancy.

This patient, like most of the others spoken of, had had periodical hemorrhages since the seventh month. As a necessary result she was reduced to a very dangerous condition of weakness.

I was called first during the night of Jan. 20, 1886, to render assistance to the midwife, to whose care it seems this patient had been entrusted since the seventh month. The patient had experienced a very large loss of blood, a short time prior to my connection with the case. On vaginal examination the os was found to be but slightly dilated, although some labor-pains had been experienced. The placenta could be distinguished, being implanted very near the internal os. The patient's condition would admit of no delay, so rapid dilatation of the os and rapid delivery were decided on. The patient was anæsthetized and dilatation by Barnes' dilators was rapidly accomplished and version performed. The child was delivered living. During the process of delivery the mother suffered a large loss of blood, and immediately after the child's birth the pulse disappeared and to all appearance respiration also ceased. However, I directed the husband to assist me in raising her to an almost inverted position, and by our united efforts we held her suspended in that manner until we were rewarded by a return of respiratory effort. After a number of injections of brandy and digitalis reaction came on and she finally made a good recovery.

Case 5. Mrs. F., 39 years old. Multipara. Eight and one-half months pregnant.

This case was under the previous care of Dr. Rudolph Braun, of this city, who informed me that he was first called on April 22, 1888, on account of severe hemorrhage. He learned that she had suffered almost daily hemorrhages since April 16 preceding. On vaginal examination he found the os dilated to the size of a quarter dollar, and soft and dilatable, but no placenta could be distinguished. There were no pains. He advised rest and opium. On April 23, 9 A. M., the patient had a slight hemorrhage. No pains, and no change in the condition of the os. He visited the patient again in the evening on account of the profuse flow, which largely consisted of the waters, the membranes having ruptured. But still no pains were present and no further dilatation of os had taken place. On April 24, at 9 A. M., the patient again had a hemorrhage, alarming in quantity, and my assistance was requested in the case.

I found the patient almost bloodless and greatly shocked. Although in a condition plainly indicating the great hazard of the undertaking, I advised delivery by means of rapid dilatation of the os and version. After active stimulation she was anæsthetized and the operation began.

The dilatation was easily and rapidly accomplished, and the hand, on being carried through the os, discovered what appeared to be a central implantation of the placenta. This was separated on the mother's right side sufficiently to allow the hand to pass. This action was followed by additional hemorrhage, to check which the whole placenta was detached and expelled into the vagina. The hand was carried rapidly upwards to the fundus, and owing to the evacuation of the waters on the proceeding, great difficulty was experienced in rupturing the membranes. They were, however, finally torn, and, in the hurried attempt at version, I committed the error of hooking an elbow under the impression it was the knee and an arm was brought down. It will be remembered that during all of this time the placenta was hanging loosely in the vagina, and consequently, without the shadow of doubt, no utero-placental circulation could have been taking place.

A second and more skilful attempt at version was then made, and the child was shortly afterward delivered, which, notwithstanding the above-mentioned conditions, immediately cried on being born, needing absolutely no efforts at resuscitation. I am positive that the placenta was entirely separated at least eight minutes before the child was born, and I will not even attempt to ex-

plain the fact that asphyxiation in no degree existed. The mother made a rapid and good recovery.

This last case is an example of one of the most common conditions under which I have been brought to face this most dangerous trouble.

The patient, having for days suffered successive losses of blood, is finally reduced to a condition of collapse. The os is undilated, no pains are present, and nature has as yet made no effort to empty the womb. To wait longer is only to add one more to the already large mortality list from this cause, and to interfere by efforts at terminating the pregnancy, is to assume the terrible responsibility of perhaps ending the patient's life during such attempts. Which course shall we pursue? For this is the case that admits of no indecision. To my mind there is but one course, and that is to terminate the pregnancy then and there. I believe—and this belief has been gained by hard bedside experience—that in the majority of cases of placenta prævia at term, or during labor, after large hemorrhages, and particularly in multiparæ, that the os very readily admits of dilatation, either manually or instrumentally. Of the two methods I prefer the hand. The Barnes dilators often accomplish the purpose and just as often they utterly fail. When distended sufficiently to exert a dilating effect they are apt to slip either inwards, into the uterine cavity, or outwards into the vagina. Again, they rupture very easily on account of the hyper distention to which they are generally subjected, both above and below the point of opposition to dilatation. For some years I have relied almost entirely on the hand in bringing about dilatation in just these cases. I have no doubt of the justifiability of manually dilating the os and forcibly terminating the pregnancy in this condition, on the grounds of, first, feasibility; second, comparative safety; third, its affording some chances to the child of further existence. I do not think that the first and last grounds need any defence at my hands; they are generally acknowledged and accepted as fact. On the question of the safety of this proceeding some difference of opinion may exist. Strictly, the operation is only safe comparatively speaking, and its performance is not to be viewed as devoid of danger. The chief danger to be apprehended lies in the infliction of the additional shock. As a rule, I think shock, more than further hemorrhage, is to be feared in the operation. The employment of an anæsthetic aids materially in averting the shock. In a large number of these cases the os can be rapidly dilated manually with safety to mother, for the reasons that the placenta never is attached to any portion of the cervix proper, that the form called central implantation is rare, and the fact that in the great majority of cases the form called by some writers latero-cervical is more often met with. In these latter cases, after slight dilatation, we can partially separate the placenta from its attachment to that portion of the uterus which must be stretched during the passage of the child's head, and thus check hemorrhage. Again, after dilatation and during the performance of version, the hand and arm act as important hemostatics by their direct pressure on the torn utero-placental vessels. Other grounds might be adduced, but that would involve a discussion on the anatomy and physiology of the lower segment of the uterus and cervix, which is not exactly the object of this paper.

In my experience no great loss of blood, as a rule, is provoked by its performance, and I am satisfied that when not too long delayed it offers one of the best safeguards to the mother that is within our power to afford her. I would not hesitate to employ this means, under the proper conditions, knowing by experience of its safety, and knowing, just as well, the great responsibility its employment entails. Too often its ill success is due to the fact that many of these cases are allowed to reach that point when interference through any justifiable means only has the appearance of hastening an unfavorable termination. I believe these delays will always occur on account of one reason or another. Sometimes it will be the thought that if we do not attempt some hazardous proceeding the hemorrhage will not recur, no more shock will be inflicted, and may be our friend, good old mother Nature, will make all things right. Sometimes the delay will be caused by the fear that comes to all of us, that if we do not save both mother and child, or if we assume a responsibility that may sacrifice both, we will either suffer in reputation, or receive only vilification for our pains. But, gentlemen, ingratitude for ministrations at our hands or duties well performed is our common lot, and that fact should not deter us in just such cases as the one last cited from hopefully and fearlessly discharging a grave responsibility, re-

lying only on an approving conscience for that justification only too often withheld by those for whom responsibility is incurred.

COMMUNICATIONS.

PERITYPHLITIS.

BY JOSEPH H. HAYDON, M. D.,
NEWARK, N. J.

The term "typhlitis" signifies inflammation of the vascular mucous surface, or all the coats of the cæcum, and "perityphlitis" inflammation in the abundant connective tissue which attaches the cæcum to the psoas and iliac muscles; and, to quote Dr. James T. Whitaker in his article on this subject, in Pepper's System of Medicine, typhlitis is, strictly speaking, limited to affections of the cæcum and its appendix vermiformis, while perityphlitis is mostly due to an extension of the inflammation to the peritoneal envelope of these organs. Still these diseases are so closely related to each other that it is highly proper, in a paper of this character, to consider them both under the one head of Perityphlitis.

So, at the outset, you will understand that it is not my province to discuss this subject in any classical or ponderous manner, but only to describe two cases, and intersperse their histories with a few remarks upon the etiology, symptomatology, and treatment of the disease. I will here mention some of the causes of this disease. They are many and varied; for instance, severe colic, the lodgment of hardened fecal matter, stones of fruit, may, either of them, singly or together, by becoming impacted in the vermiform appendix or cæcum, give rise to dangerous inflammation ending in abscess. This subject, however, in all its details, is so familiar to you all, that I do not think it necessary to offer any further explanatory remarks upon it, but will proceed at once to relate some experiences of my own with this malady, hoping that they may be fairly interesting.

Case I. This patient came to my knowledge just after I had received my diploma, in March, 1872. The patient, a female, applied by messenger to the Clinical Department of the University of New York City and asked to have a physician sent to her immediately. Professor Aylett, a blind Quiz Master in whose class I had been, asked me if I would like to go. I consented, and he and I went together. I told the symptoms of the case while he listened, and never a word else passed between us until when he had arrived at what seemed to him a satisfactory conclusion, and said, "Perityphlitis. I can't see to use the knife when the time comes and I am afraid to trust you." To say the least I was mortified, but said nothing, and the Professor, after deliberating for some minutes, advised me to appeal to some one else to aid me, which later on I did, but in the meantime, being somewhat chagrined by his want of confidence in my ability, I had determined upon my own course and with all possible expedition and care made notes of the features of the case, then went home and read up the subject from its incipiency to its finish, which, together with opening the abdomen over the right iliac fossa down to the cæcum, on many cadavers, in the dissecting room of the college within the next few days, made me pretty well acquainted with what I might soon be called upon to attempt. My patient, a Mrs. Grier, who seemed to be a woman of fair constitution, but nervous temperament, was, on the morning of March 16, 1872, seized with sudden pain, without premonition, which was colicky in character, and located in the abdomen. Vomiting occurred every fifteen or twenty minutes. The abdomen was tensely swollen, and tender to the touch, especially so over the right iliac region. The woman had eaten heartily, or rather inordinately, of grapes, one or two days previously. The pain was paroxysmal in character, and very severe, and had not been relieved by all the domestic remedies which had been used through the night. I immediately gave her hypodermically, first fifteen, and in one hour after twenty minims of Magendie's solution of morphia; this had the desired effect, for soon after the second dose she was resting easily, and remained so for five or six hours, when the pain returned and morphine was again administered. The pulse was 120, the respiration 36, and the temperature 105°.

On March 17 I found that the patient had passed a restless night, suffering excruciating pain in the bowels except when partially under the influence of morphine. At this time the tenderness over the abdomen was so great that hardly any examination of the bowels, however gentle, could be borne; a prominent fulness over the right side,

especially noticeable in the ileocæcal region, was now well marked; I ordered ten or twelve leeches to be placed over this side and administered half a grain of morphia hypodermically, and left the case until evening, when I found that the leeches had done their work as far as drawing the blood was concerned, but the patient's general condition was about the same as it had been at the morning visit, so I advised continuance of morphine, in half-grain doses every two or three hours, until perfect rest ensued; and the whole abdomen to be covered with hot poultices. The pulse was still 120, the respiration 36, and the temperature 105°.

For the next two days there was no apparent change in the patient's condition. I then called Dr. Early, a friend of mine, to see the case with me; after examination of the patient, he confirmed my, or rather my blind preceptor's, diagnosis of ileocæcal abscess, but advised delay in operative interference and suggested the application of tincture iodine over the seat of the abscess and the continuation of the hot poultices over the whole abdomen. This line of treatment followed for three days longer, the patient's general condition apparently becoming much improved; she partaking of considerable nourishment, without any tendency to nausea, and having only very slight pain at any time. This condition of affairs continued uninterruptedly for about three days more, the patient refusing to permit any kind of an operation, even of an explorative character, when, all at once, I was summoned to find a return of all the unpleasant symptoms; increase of pain over tumor, the deeper outlines of which could now be more distinctly defined. The skin was natural in color and pliable, no fluctuation present, and no rigor. The point of greatest tenderness was about an inch inside of the anterior superior spinous process. The pulse was 124, and the temperature $104\frac{4}{5}°$. The indication for operative interference being apparent, I explained to her the danger she was in and gained her reluctant consent. I at once summoned Dr. Early to assist me, and, the patient having been fully etherized, an aspirator needle was introduced into the tumor at the point of greatest tenderness and dulness, the only result of this procedure, after penetrating about two inches, was in obtaining probably a drachm of sanguineous pus, strongly fecal in its odor. Satisfied now of the correctness of our opinions, I next made an incision three inches in length over the seat of puncture of the aspirator needle, and cut down through the integument, and tendinous and muscular structures to the transverse fascia. Here in bold relief was an apparently hard, unyielding tumor, without the least semblance of fluctuation, but of a somewhat doughy consistency; it was the work of only a few seconds more until, cutting the transversalis fascia and enlarging somewhat the first opening made, reward came immediately in a free discharge of pus, mixed with a large quantity of grape seeds. Before dressing the wound an exploration was made of the abscess cavity by introducing a finger, by which method I removed a mass of agglutinated grape seeds, probably as large as a small-sized hickory nut. The wound was now packed with pledgets of carbolized lint, over which was placed a poultice. The next morning the cavity of the abscess was thoroughly washed out with a carbolic acid solution (one fluid drachm of the acid to a pint of water) and more grape seeds were brought away. A rubber drainage-tube was then inserted in the wound and the application of warm poultices continued; morphine, in doses of a quarter to a half a grain, was also given two or three times a day. From this time on the patient made a good recovery, sleeping well, and taking liquid nourishment with a relish. The swelling and tenderness of bowels disappeared entirely, and the bowels acted naturally and regularly once a day. The wound healed by granulation, but without much discharge.

A point of interest in this case is the almost positive certainty that the immediate cause of the trouble was the accumulation of the great quantity of grape seeds in the cæcum. Some writers on this subject doubt that the lodgment of foreign bodies cause such a condition.[1]

It may be in place to say a few words in reference to the many diseases with which typhlitis and perityphlitis may be confounded. Among these are acute peritonitis of idiopathic origin which, from its suddenness and severity, may be thought to have its origin in perforation of the appendix; also the peritonitis caused by the perforation of the bowel in enteric fever. The same may also be said of all those cases in which peritonitis arises from the perforation of a

[1] See Dr. Ryerson's article in the Transactions of the Medical Society of New Jersey, page 100.

hollow viscus or of an hydatid or other abscess, or from the extension of inflammation from various pelvic organs, especially those of the female. Again, the local suppuration which attends many cases of perityphlitis or typhlitis may, in some of its stages, be confounded with abscesses of other kinds. Among these may be enumerated, psoas abscesses and abscesses extending from the kidney, the spinal canal and the pleura. The disease may similarly be mistaken for ovarian tumors of inflammation, or for cancerous tumors of the venter illi or glands in the vicinity of the cæcum, and, even under some circumstances, for aneurismal tumors.

Case II. Female; seven years old. The attending physician's diagnosis was acute peritonitis, with intestinal obstruction at the ileocæcal junction; and he, Dr. Swan, gave the following history of the case: For the two weeks previously the patient had complained of lancinating pain over the abdomen, which was especially acute in the right iliac fossa. The child attributed her trouble to the bruising her right side by falling over a pile of wood one evening, as at that time she had experienced considerable pain all over that part of her body, from the inguinal region up to above the point of the hip bone; this pain, however, passed off in a few hours, but afterwards returned with renewed intensity and severity, and had remained severe up to the time of my visit, notwithstanding Dr. Swan had administered opium and morphine in what he deemed sufficient quantities, and had also applied warm poultices continually.

On examination the abdomen was found to be greatly swollen and tympanitic, with marked tenderness over its entire surface, but particularly so over the right iliac region, rendering a thorough examination almost impossible; but sharp inspection seemed to reveal a slight elevation in the abdominal wall, at point of the greatest tenderness, so suspecting the formation of a perityphlitic abscess, the employment of six or eight leeches, and a continuation of the warm poultices was advised. This course had the effect of relieving the symptoms of general peritonitis and locating the trouble in the right iliac region, thereby confirming the suspicion that this was the locality principally involved. The pulse fell from 120 to 100 and the temperature from 103° to 100°, and for the next five or six days, during which time I did not see the case, the patient remained quite comfortable, and the general indications pointed to an entire subsidence of all heretofore unpleasant symptoms. The seventh day after my first visit, and the twenty-first from the commencement of the trouble, I was again summoned to the case. On examination I found over the outer half of Poupart's ligament and very close to it, a circumscribed, deep-seated tumor, extremely tender to the touch, dull on percussion, but not fluctuating. The patient was suffering great pain. Her pulse was 136 and rather feeble. The temperature 105°, and the patient's countenance was haggard and distressed looking. Appreciating the importance of these unpleasant symptoms at this stage of the disease, the conclusion arrived at was that the time had now come for surgical treatment, so the parents having been made to understand fully the danger to their child and their consent being obtained, etherization of the little patient was soon completed. The urbanity of Dr. Swan caused him to tender to me the honor of operating, which I did in the following manner: Taking the line of direction of Poupart's ligament as my guide, an incision was made parallel with it, two inches in length, commencing about one inch above the anterior superior spinous process of the ilium, the dissection was carefully carried down through the abdominal parietes until the fascia transversalis came to view; this was guardedly opened, and on the withdrawal of the knife from three to three and a half ounces of pus escaped, in which an ordinary sized lady's shoe button was found. Later the patient was asked if she remembered swallowing a shoe button, but she did not. Before dressing the wound the cavity of the abscess was explored, but no further foreign substance of any kind was discovered. The patient made a rapid recovery.

In both of these two cases it seems clear that the disease was caused by the lodgment of foreign bodies in the bowel. As to the proper time for surgical treatment, although operative interference was considerably delayed in both of them (that in the first until the seventeenth, and the last until the twenty-first day) and the results very happy and successful, I think, as a rule, that we should not wait after the first week or ten days before making an exploration with the aspirator, and if pus be found the operation should not be delayed. We should not wait for fluctuation, for often that will not be recognized, even though only the transvers-

alis fascia interpose between the accumulation and our finger. The point of greatest dulness and tenderness, and that will generally be found to be within one inch, more or less, of the anterior superior spinous process, and this is the place that should be first aspirated, and, if pus is not found, very little time should be lost in making a new trial, rather than let our patient run the risk of perforation and death.

In a case near Irvington some years ago, that came under my observation, a young lady who had been threatened with perityphlitic abscess for ten days in which pus was thought to be formed or forming, a delay of forty-eight hours was proposed by Dr. Stephen Weeks, now deceased; but, after waiting almost this time, the patient died with all the symptoms of acute general peritonitis, following, it was thought, perforation. No *post-mortem* examination obtained.

In conclusion, let me say that I think the keeping of the wounds thoroughly opened and drained, together with perfect antisepsis and great care in the dressings, so that no injury be done to the walls of the abscess, which may be very thin and easily ruptured, are points which, if followed, will materially increase the chances of a successful termination of the case.

CREMATION.

WHAT IS THOUGHT OF IT BY PHYSICIANS.

Interviews with Physicians by a Representative of the Medical and Surgical Reporter.

Fifth Series.—New York—Baltimore.

Dr. John A. Wyeth says: I am fully a believer in cremation of dead bodies. Personally I desire such disposal of my machinery when it is worn out and stops.

Dr. T. M. Prudden thinks that cremation as a general method of disposing of the dead is greatly to be desired.

Dr. J. R. Leaming is also in favor of cremation for the disposal of the dead, especially in crowded localities.

Dr. Oren D. Pomeroy says that he thinks there is no doubt as to the sanitary indications for cremation, rather than burial. The sentiment of the matter, perhaps, would call for the old method of burial, especially among religious people who firmly believe in the resurrection of the body.

Dr. Lewis A. Sayre says: In a sanitary point of view, cremation, it seems to me, is the only safe way of disposing of the dead, especially in large cities, and I hope soon to see a law passed that will make it compulsory and universal.

Dr. A. Macdonald is decidedly in favor of cremation, and drew the attention of our Representative to a letter written to the President of the Department of Public Charities and Correction in 1888, in which he urges both the propriety and expediency of substituting cremation for burial in the case of the unclaimed dead of the above department.

BALTIMORE.

Dr. H. H. Biedler says emphatically that he is in favor of cremation, and is guided in his judgment by sanitary laws, as well as by a desire for the reduction of the corpse into simple elements of a portable bulk.

Dr. George B. Reynolds expresses the opinion that cremation should never be permitted in cases of murder, poisoning, suicide, nor when foul play is suspected. Cremation is a good mode of disposing of dead bodies in time of epidemics, wars, floods or whenever the number of dead exceeds the facilities for natural interment. Cremation, in most, if not in all, other cases, should be left optional with relatives or friends of the deceased.

Dr. Thomas Shearer says: I am strongly in favor of cremation as a means of disposing of human remains, and I am greatly surprised that, from a sanitary point of view, such is not the universal sentiment of the profession.

Dr. D. W. Cathell is of the opinion that cremation is not required, and will never supersede inhumation in this part of the world. I have practiced medicine, he said, for nearly twenty-five years around Baltimore's principal burying-grounds, and have never known a single case of sickness traceable to them. With stinking garbage boxes in every yard; with our germ-producing sewers and our cesspool exhalations; our filthy gutters, our stable effluvia and our market-house debris; with our suburbs alive with disease-breeding slaughter-houses, dumps, pig-styes, manure piles, night-soil-using truck farms; with fertilizer factories, carcasses, weeds,

gullies, stagnant pools and hundreds of other unsanitary foci staring us in the face, with dangers as much greater than inhumation as a camel is larger than a mote, the gain by cremation would be very small. Let us continue to bury our dead, with increased precautions against their affecting the living, and leave cremation to its dreamy partisans and Pagan history.

Dr. Thos. B. Evans says that the cremation of the dead has been to him a subject of thought for some time, and he believes that it is the very best method to pursue. From a sanitary standpoint, it certainly has its advantages, and that is all-sufficient to the medical mind, that labors to prevent as well as to cure disease. I think, says Dr. Evans, that the prevention of disease is the grandest theme which our profession can discuss, and one of the very best means to employ for that purpose, is to incinerate the cause.

Dr. George H. Rohé thinks that any agitation in favor of the general adoption of cremation as a method of disposal of the dead would be both premature and unwise. So many directions exist in which medical men can profitably exert their influence for sanitary and other reforms, that he regrets to see activity wasted in pursuit of a chimera. The following conclusions were appended to a paper by Dr. Rohé on this subject, published in the Transactions of the Medical and Chirurgical Faculty of Maryland for 1888. He knows no reason why he should change them now:

"1. Cremation is not necessary as a sanitary measure, under conditions prevalent in this country.

"2. Cremation has no advantage on the score of economy over interment.

"3. Cremation fails to meet the requirements of epidemics or wars so well as burial.

"4. Cremation is objectionable from a legal point of view, as criminal poisoning would often pass undetected if incineration were general.

"5. It fails to comply with the emotional demands of our nature, by substituting a harsh and unseemly procedure for the more poetic and sentimental slow dissolution going on in the grave."

Dr. James A. Stuart has always approved of the practice of cremation, particularly on sanitary grounds. It will take a long time, he thinks, to overcome popular prejudice, but is glad to add his mite.

Dr. Herbert Harlan favors cremation and thinks cremation, as a general method of disposing of the dead, very desirable. He sees but one objection, viz., that if the custom were in general use it could be used as a means of destroying evidence of crime in deaths by poisoning.

Dr. Hiram Woods stated that he had not given the subject of cremation sufficient thought to make his opinion valuable enough for publication. So far as he had looked into it, however, he could see many things in its favor from hygienic and economic points of view. These seem to him to outweigh the two most potent objections, (1) the possible concealment of crime, and (2) the "sentimental" objections. The prevention of the former will require some care, while common sense will remove the latter.

Dr. Lewis M. Eastman was most decided in his opinion on the subject. Life, he said, physical and spiritual, is dear to all. Death affects only the body; and this it makes loathsome and revolting, even to those who loved it most in life. Cremation not only destroys this "hot bed of disease," but permits its elements, at once, to re-enter organic life. For this reason, he also opposes saving the ashes of the dead—let them be scattered over fields,—not of useless and harmful weeds, but useful and food-yielding plants.

Dr. Christopher Johnson expresses his warm approval of cremation for the following reasons:

1. It renders all mortal remains innocuous, and is therefore a great and important sanitary measure, protecting the health of communities.

2. It renders grave robbing impossible.

3. It is a decent and economical mode of disposing of human remains.

4. It anticipates and prevents the painful attempts at the removal of human remains when succeeding generations demand the space they occupy for the needs of growing cities.

5. The possibility that in a small number of cases the evidences of crime can be destroyed by cremation ought not to outweigh the great benefits conferred by the destruction of the germs of death which menace the living by polluting the air of graveyards, especially near the large cities, and the air of those cities themselves.

Dr. Edward M. Hartwell, of the Johns Hopkins University, was next questioned. He said it seems to him that cremation affords the safest and best means, from a

scientific and sanitary point of view, for the general disposal of dead bodies; but popular prepossessions, grounded on sentimentality and superstition, in favor of coffins and inhumation, are so deep and strong that he sees little prospect that cremation will become either popular or usual, in America, in our day.

According to Dr. Chas. C. Bombaugh, the chief argument in favor of cremation is the all-important one of sanitation. In and around large cities, where every foot of ground is needed for the accommodation of a superabundant population, it avoids the overcrowding of cemeteries, and thereby prevents eventual contamination of air and water. In these days of progressive improvement its advocates contend that a lingering sentiment must give way to science, and the religious aspect of the question must yield to the sanitary aspect. With regard to the Christian view of the resurrection of the body, they consider it immaterial whether it moulders into dust, or is converted into ashes. The most weighty argument against cremation is that of medical jurisprudence. In cases where subsequent appearances or discoveries create suspicion of criminal poisoning for the accomplishment of atrocious purposes, if the body is destroyed by fire, the anatomical and chemical evidence, and hence the means of positive detection, are destroyed with it. In the summation of testimony, much, of course, depends on the moral evidence derived from the surroundings, the non-medical facts which the physician, as well as other persons concerned, must weigh and measure. But the clinching witness is to be found in *post-mortem* analysis and demonstration, and those who are familiar with the statistics of crime and the large ratio of poisoning in every country, have good reason to fear that if cremation were to become general, a considerable proportion of murderers of the Borgia school would escape capital punishment.

Dr. T. Barton Brune regards cremation as the most desirable method of disposing of our dead. To him the only objection to it is a sentimental one; but this, unfortunately, is so popularly held that a long time and great perseverance on the part of its advocates will be needed to insure the general adoption of cremation. Perhaps the knowledge that the horrors of premature burial and of the resurrectionist are prevented by cremation may commend it to the sentimental public.

Dr. Wilmer Brinton has no decided views in regard to the propriety or desirability of cremation. He recognizes, however, that under certain circumstances cremation is the most rational method of disposing of the dead, and believes that at some future time it will become popular in all the large cities of our own and other countries.

Dr. T. A. Ashby says that from a hygienic and sanitary standpoint cremation is the only rational method of disposing of the dead in large communities. Its practice should be enforced by the State in times of war, pestilence and epidemic. As the method of burial of the dead is sustained chiefly by custom and sentiment, it is possible to educate society up to the point of considering the great advantages of cremation in the interest of the living. With the rapid growth of population in the United States and the increasing tendency to concentrate this population in large communities, the time has come for a general movement of all classes of citizens in favor of cremation.

Dr. Samuel Theobald has long felt that the disposal of the dead by cremation is far preferable to the semi-preservation of the body by burial; and this is true, he thinks, whether we regard the matter from a hygienic or from a sentimental standpoint.

Dr. J. H. Hartman unhesitatingly says that he regards cremation as the only proper and sanitary method of disposing of the dead.

Dr. Chas. E. Sadtler thinks that for the large cities of modern times, with their frequent epidemics, the "decay and worm" method of disposing of the dead is a source of danger to the living, and he is entirely in sympathy with any concerted movement towards cremation.

Dr. Walter B. Platt considers the cremation of human dead bodies eminently proper and desirable, on sanitary as well as on economic grounds.

Dr. J. E. Michael confesses having given the subject of cremation very little attention. Personally he is entirely unprejudiced, and sees no objection to its being carried out when desired and when there is no mystery about the cause of death; but if it is generally adopted it will be necessary to attend to the matter of death certificates much more accurately and thoroughly than is done at present, or much crime which is now detectable by *post-mortem* examination and chemical analysis will go unpunished.

Viewing cremation from a sanitary standpoint, Dr. R. W. Mansfield thinks it best for the living, and it should therefore be more generally adopted.

Dr. F. T. Miles thinks cremation will be the mode of disposing of the dead in the future. This will be demanded by the micro-organism theory of the propagation of disease.

Dr. I. R. Uhler is, for sanitary reasons, highly in favor of cremation; as heat is the best disinfectant, and, after death from contagious diseases, it should always be promptly employed. From a medico-legal standpoint I am opposed to cremation, as it affords an opportunity to get rid of evidence, especially in poisoning and life insurance cases. For the same reason I object to embalming by poisonous substances and think for the present it is better to use the ice casket.

Dr. Joseph T. Smith says that his mind has been made up in favor of cremation for several years. He sees nothing but what is eminently proper in thus, in a clean, orderly manner, rapidly disposing of the body. So long as the return to dust cannot be prevented, the proper thing, it seems to him, is to hasten this return of the body to its natural elements by all the means in our power. Nature herself takes, I think, the proper course, and at death begins at once with her micro-organisms a rapid destruction of the body. I think cremation desirable in that it removes one great source of infection of the earth's surface. This alone I think sufficient to render it desirable that all diseased bodies should be destroyed by heat, in order that there shall be no possibility of their infecting the ground of the living.

Dr. W. T. Councilman sees no objection to cremation.

Scientifically, Dr. Randolph Winslow believes that cremation is the best method of disposing of the dead, but he must confess to a certain amount of repugnance to it, practically.

Dr. N. G. Keirle's opinion is that from a hygienic and æsthetic point of view, cremation is more desirable than the present mode of disposal of the dead, which is an expression of emotion wrongly fashioned. Cremation, of course, should be subject to legal and medical restriction.

Dr. J. C. Hemmeter states that he is emphatically in favor of cremation. By explaining its method and advantages to the populace it cannot help but meet with general approval. It is certainly a more pleasing thought to have one's body return to its primitive elements at once, than to have it rotted and corroded by various chemical fluids and animal forms. Besides, it is very probable that cemeteries act as sources of wholesale infection. To the great majority that constitutes the middle class of our people, cremation is more economical than burial; funerals have become very expensive ceremonies—this should not be overlooked.

Dr. J. D. Iglehart holds cremation both proper and desirable from a hygienic point, for all large cities; but the popular mind will have to be educated before it can be looked upon as a satisfactory substitute for the prevailing custom.

Dr. John F. Monmonier does not see the desirability or the propriety of changing the present mode of disposing of the dead for that of cremation. In the distant future it may become necessary to resort to a system of general cremation as a sanitary measure.

Dr. J. Mason Hundley opines that cremation offers many advantages over the more ordinary method of disposing of the dead, especially in large cities; but the idea is revolting to many, and it will require time—if ever it can be done—to educate the people in adopting it universally.

Dr. J. M. Cortul says that cremation meets with her approval. She thinks it the best manner of disposing of the dead in our large cities. It not only improves the sanitary condition, but according to her judgment, would materially assist in beautifying our cities and suburbs, by doing away with cemeteries, which give a gloomy appearance, no matter how beautifully arranged.

Dr. W. Winsey says that the propriety and the desirability of cremation, instead of inhumation as at present generally practiced among us, must, for many years to come, in a country like ours, remain a matter of individual feeling and inclination. He thinks the conditions in this country, with few exceptions, are not such as to call for legislation upon the matter, in the absence of which the change of opinion in favor of cremation will be very gradual. Personally he would not object to having his body cremated.

Dr. Eugene F. Cordell is heartily in favor of cremation. The interests of the living have not been given their due weight in the consideration of the subject, which has further been obscured by too much sentimen-

tality. In his opinion the demands of modern sanitary science can be met only by cremation. None of the objections to it seem to deserve any consideration except that it may sometimes be an obstacle to the detection of crime, and with proper safeguards even this objection may be practically done away with.

Dr. Henry M. Hurd says there are, in his judgment, grave objections to cremation from a medico-legal standpoint, which far outweigh its advantages from an hygienic point of view. Until population in America is denser and the lack of ground for burial purposes is more pressing he does not think it desirable to adopt cremation as a general means of disposing of the dead.

Dr. R. L. Randolph says that the cemetery system is bound to be a temporary one. Burning does quickly what it takes putrefaction a long time to accomplish, and from a sanitary point of view the former is infinitely preferable.

Dr. B. F. Leonard thinks that in this comparatively young country cremation is not yet a burning question; but it has everything to recommend it. It is sanitary, it is cheap; it robs the tomb of its foulness and danger to health by inoffensively accomplishing a quick return to the elements; and to a reflecting mind it cannot arouse religious prejudice or legal objection, as there is ample opportunity to pay proper respect to the dead, and to investigate suspicious cases of death.

Dr. Edward E. Mackenzie thinks well of cremation, and trusts the time may come when all may think the same.

Dr. A. Friedenwald is opposed to cremation on the ground that the objections that have been made against interment for sanitary reasons have not been satisfactorily established.

Dr. W. D. Booker is inclined to the opinion that cremation is the best method of disposing of the dead.

Dr. P. C. Williams says: My opinion on the subject of cremation is this:

There are three aspects under which it presents itself: 1. Its religious aspect. "Dust thou art, and unto dust shalt thou return." It certainly makes no difference whether we return to dust through the rapid process of fire, or the slow process of natural decay.

2. Its appeal to one's feelings. Some shrink from the idea of our direct agency in committing our dear ones to the flames; but is the agency not equally direct if we commit our friends to the dust or to the waves, if they should have to be buried at sea?

3. It presents the question of healthfulness. This is the clearest and strongest of all grounds upon which we can consider the question of cremation. When we see how rapidly all the cemeteries near our large cities are filling up, it becomes a serious question not only where space can be had for the burial of the unnumbered thousands that must be disposed of during coming generations; but it becomes a still more serious question how this innumerable collection of dead bodies may affect the health of our cities. On both these grounds it seems to me that sooner or later we will be driven to cremation as the only possible solution of a rapidly increasing difficulty. If it must come to this ultimately, why not begin at once? When an act becomes inevitable the sooner it is done the better! Therefore, upon grounds of religion or ethics I see no objection; upon grounds of healthfulness there is not only no objection, but to my mind there will soon arise urgent necessity for cremation.

EXTERNAL PERINEAL URETHOTOMY.—REPORT OF CASE.

BY T. G. HICKMAN, M. D.,

VANDALIA, ILL.

George B., 30 years old, consulted me in March, 1888, for a difficulty in voiding his urine in the natural way, telling me that the most of it passed underneath through "holes" and that matter ran out through the holes all the time. He gave the history of an injury he had received eighteen months before, stating that while walking on the comb of a house, his feet slipped and he fell astride the comb, with all his weight coming upon the genital organs.

On examination I found three fistulous openings in the perineum, with evidence of a discharge of purulent matter.

An attempt to introduce an instrument of any size into the bladder failed. A bougie of large size could be easily passed as far as the bulbous portion of the urethra, but then met with obstruction. The smallest size flexible metal sound could not be passed beyond this point. A small probe was passed

through the largest external fistula for a distance of three and one-half inches, when it came in contact with the metal sound that had been passed to the seat of obstruction. The touch of the two instruments could be distinctly felt.

I informed him, that in order to be relieved, a surgical operation would have to be performed; and that I could not say positively that it would be a success, but that it was his only chance to be relieved.

The patient expressed his willingness to have it done. But when the time for the operation came he did not put in an appearance.

The next thing that I heard was that he had fallen into the hands of another "physician" who had offered to cure him in two weeks, without an operation; and that the cure was to be effected with salve alone. This easy mode of treatment, and the short time it would take to be cured, had the effect of taking him out of my hands for a time. After several weeks of salve treatment without any benefit, and having exhausted his ready stock of cash in traveling back and forth on the trains, he came to me again in November, 1888, and wanted me to take his case. As he lived seven miles in the country, I told him if I took his case he must come to town. This he agreed to do, and moved in. On examination, I found the same conditions existing as in March before. On the 4th of December, accompanied by Dr. F. B. Haller and two assistants, I went to the house he had rented, which was a miserable, little, poorly lighted room; very unsuitable for an operation requiring light.

The patient was placed in the dorsal lithotomy position, and chloroform was administered by Dr. Haller, until stertorous breathing was produced, and, as we supposed, anæsthesia complete. The Doctor now introduced the grooved staff as far as the obstruction. I now attempted to make an incision, but on the slightest touch of the knife, it was evident that sensibility was too great to proceed.

The chloroform was then pushed as far as safety would allow, and another attempt was made to proceed; but such was the refractory and unmanageable condition of the patient, that owing to the lateness of the hour, our already exhausted stock of chloroform and the need of more assistants, it was deemed advisable to postpone the operation for two days.

On the 6th of December, having procured three additional assistants, now five in all, the patient was placed in same position, chloroform administered by Dr. Haller until the breathing became stertorous. The chloroform was now entrusted to an intelligent young man who had assisted me on several occasions.

The staff being introduced, I now commenced the incision, but sensibility was still so great, that it required the united efforts of all the assistants to hold the patient still enough to use the knife with any certainty. An incision was made in the median line 1½ inches long, and gradually deepened until the groove in the staff could be felt with the point of the knife. With a few forward cuts with the point of a curved bistoury, Dr. Haller was enabled to advance the point of the staff a little. At this juncture I resorted to the use of a wire guide I had improvised, in the absence of the whale-bone bougie. The wire guide with bulbous point was now pushed backwards in the groove through the end of staff, until it entered the bladder.

The urethra being deep and the incision short, necessitated the use of two ligatures, which were deeply inserted into the edges of the incision, and the wound held apart by two assistants, making traction on the ligatures.

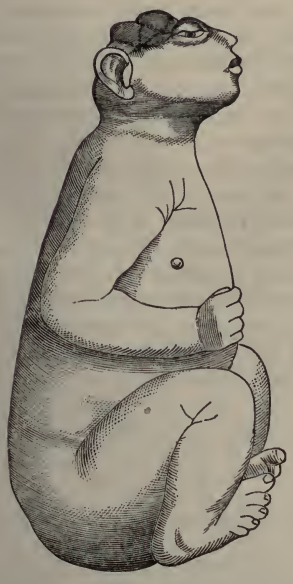
The point of the staff could now be felt with the index finger, as could also the urethra in front of the prostate glands. With a curved pointed bistoury, the point held well up to the roof of the urethra, the incision was carried backwards, and the staff advanced at the same time over the wire guide, until the end of the staff entered the bladder, which it did easily, and was rotated. This completed the operation. The patient was placed in bed; an opiate left to be taken when consciousness returned.

The after treatment consisted of daily washing out the bladder with antiseptic solutions. The catheter was left out during the night, but inserted each morning. This treatment was continued for five weeks, when patient wanted to go home. I had him to report every third day for two weeks, then once a week for three or four weeks, when he continued same treatment at home by means of a funnel attached to the rubber tube. There has never been any recontraction of the caliber of the urethra, and the expulsive force of the bladder appears to be as strong as ever. I also learned, through

a mutual friend, that none of the functions of the genitalia have been impaired in the least.

A PSEUDOCEPHALOID INFANT.

BY W. W. PENNELL, M. D.,
FREDERICKTOWN, OHIO.



The accompanying photograph, copied from a hand-made picture of a monstrosity born Nov. 5, 1889, is quite accurate. The father and mother of the child were white. The mother, Mrs. S. D., healthy, 39 years old, is the mother of six well-formed children, two of which are dead. The birth of this child was natural, vertex presentation in the second position; sex female; weight nine pounds; natural respiration was established immediately, the pulsation being strong and regular. By a sharp noise, or by touch, the infant was thrown into prolonged clonic convulsions, during which it became cyanotic and frothed at the mouth. Nursing could not be induced and feeding caused excessive strangling and convulsions. The eyes remained open, becoming dry and bleary.

This monster lived seventy hours, never crying nor swallowing nourishment, and lost flesh rapidly. The bowels moved but once; the kidneys remaining inactive. An examination was made after death, showing perfect development of every part except the head. The frontal, parietal and the greater portions of the nasal, temporal and occipital bones were absent. The eyes, resting upon the floor of the orbit, gave the face a frog-like appearance; the scalp drawn over the edges of the remaining cranial bones, was constricted as by a band just over the foramen magnum, where it was perforated by a dark red fungoid mass, apparently an undeveloped eucephalon, and covered by a membrane resembling the pia mater. This mass weighed two ounces, and contained five separate sacs filled with a serous material, the largest sac being adjacent to the foramen magnum. The remainder of the mass was made up of blood-vessels and connective tissue.

Portions of brain substance were found in depressions laterally and anteriorly to the foramen magnum joined by a bridge or pons. This material seemed to be cerebellar and medullar, and did not exceed two drachms in weight. Dissection of one eye showed it to be normal, except the direction of the optic nerve, which was through the body of the sphenoid into the basilar process, and it emerged near the foramen magnum into the substances surrounding that opening. The chief interest herein is that the child was carried to full term, the mother having menstruated last about January 16, 1889,—and in the difference of the kind of movement experienced from that of her other children; the motions of this monstrosity consisting in an intermittent, spasmodic and strange jerking movement, increased or prolonged by exercise or by jarring.

PERISCOPE.

An Unusual Case of Pneumonia.

Dr. Wm. Porter, Jr., of Hartford, Conn., reports in the *Boston Medical and Surgical Journal*, Dec. 26, 1889, the following interesting case: A prominent judge and lawyer, in somewhat reduced health from overwork, was taken with a severe chill at his office, October 1, 1888. Evening temperature 103°, with intense headache as the only other symptom of importance. The following morning a circumscribed pneumonia was located in the right lung. During the following week the symptoms were favorable, but it was then found that resolution was not taking place, but instead, the disease was slowly spreading toward the apex.

From this time until the third week in November, the history of this case is one of succeeding attacks, some severe, others slight, until the disease had extended entirely over both lungs, including the apices. Each exacerbation was accompanied by a rise of temperature, though at no time was it as high as that following the initial chill. The examinations of the lungs during those weeks were most interesting, showing areas of consolidated tissue, with surrounding tracts in the various stages of resolution.

The treatment was largely expectant, quinine, iron and the iodides being used as seemed indicated; the most careful attention being constantly given to the nourishment and the state of the digestive organs. Large amounts of milk, and the strongest beef preparations were well borne, and stimulants were used in increasing amounts, but with every help, weakness increased, the weak heart so characteristic of pneumonia being fully developed, and the danger of fatal heart failure imminent. At this time inhalations of oxygen and nitrogen monoxide were begun, and proved of great value. The inhalations were continued for three to five minutes, and repeated every hour, or two or three hours, as seemed needed. The effect of each inhalation was most grateful to the patient, giving a sense of refreshment in marked contrast to the extreme weakness that was present. It was a conscious aid during the progress of digestion. The action of the heart was improved, the pulse being stronger and more regular for some time after each inhalation; and as the days passed, it became evident that the lungs were clearing up more rapidly. Three cylinders of the gas were used, its value in conditions of extreme debility and heart weakness, as well as in cases where dyspnœa and cynanosis are present, being fully demonstrated.

On the Influence of Water on Respiratory Gaseous Changes.

At the Third General Meeting of Russian Medical Men at St. Petersburg, Dr. I. I. Tüvim communicated the results of his experimental inquiry into the action of drinking water on the respiratory gaseous changes in animals subjected to starvation. The experiments, forty in number, were conducted (in Professor V. V. Pashütin's laboratory) on young dogs weighing from 5 to 10 kilogrammes. The results (see *Transactions* of the Meeting, 1889, No. 10, p. 338) may be briefly given thus: 1. When introduced into the animal's stomach in doses less than 100 grammes per kilo of the body's weight, water does not manifest any appreciable influence either on the elimination of CO_2 and aqueous vapors, or on the absorption of oxygen. 2. When injected in doses of 100 grammes to each kilo, water increases the elimination of aqueous vapors (at the rate of from 2 to 8 per cent.), but shows no influence on the daily amount of CO_2 excreted, or of O absorbed by the lungs. 3. In doses of from 150 to 200 grammes to each kilo, water increases both the elimination of CO_2 and aqueous vapors, and absorption of O (at the rate of from 5 to 20 per cent.). 4. The temperature of water injested has but a trifling influence on the changes in question. Dr. Tüvim's statement may prove interesting especially in connection with the papers on the therapeutics of water, published in the MEDICAL AND SURGICAL REPORTER, Feb. 9, 1889, page 175, and March 23, 1889, page 360.

Toxic Effects of Antifebrin.

At a recent meeting of the Sophia Medical Society, Dr. Khakanoff has related an instance of accidental poisoning by antifebrin (*Meditzinski Preglëd* [a Bulgarian periodical] Nos. 1 and 2, 1889, p. 24). A lady who had been in the habit to take 15-grain doses of antipyrin on account of some menstrual neuralgic pains, on one occasion tried to treat herself, without consulting any doctor, with antifebrin in the same doses. Accordingly, she took 15 grains of the drug at bedtime and another dose the next morning. The first powder caused no inconvenience, but the second was almost immediately followed by extreme malaise, intense cyanosis, cooling down of the whole body, difficult breathing, irregular and hardly perceptible pulse, and twitchings about the face and body. The skin remained dry. Under the influence of various stimulants and analeptics (including heat), the symptoms gradually subsided. During the evening, a profuse diuresis followed. By the next morning her condition had returned to normal. Dr. Khakanoff draws attention that in some patients antifebrin gives rise to profuse perspiration,

while in others (as in the case above) it causes profuse diuresis. Referring to the paper, Dr. Molloff, of Sophia, says that he personally has seen two cases of toxic symptoms produced by 7-grain doses of antifebrin. In both of them (one referring to a child, the other to an adult who had taken four doses at the interval of an hour) the symptoms consisted in the phenomena of collapse and rapidly yielded to stimulants.

Tape-worm Remedy.

The following should be taken in one dose before breakfast:

℞ Ol. tiglii . . . . . gtt.j
Chloroformi . . . . . f℥j
Glycerini . . . . . f℥j

Venesection in Chlorosis.

The practice of venesection in chlorosis would not at first sight appear likely to yield good results, but that it is capable of acting most beneficially is vouched for by Dr. Wilhelmi, who has for some time past employed it with great success in typical cases of chlorosis. About three or four ounces of blood only should be taken, the patient being in bed and being covered up with blankets and plied with hot drinks until sweating comes on. It would appear that the severer the case the more benefit may be expected from the bleeding, but that this treatment is of little use in mere hysterical or symptomatic anemia.—*Lancet*, Dec. 21, 1889.

Tubercular Disease of the Eye.

Like all comparatively rare diseases, cases of primary intra-ocular tubercle may give rise to considerable doubt in the minds of those under whose care they are, both as regards diagnosis and treatment. In certain instances it is next to impossible to distinguish between tubercular and syphilitic nodular iritis; yet in reference to the adoption of active treatment a correct diagnosis is all-important. Such doubtful cases have been described on several occasions as granuloma of the iris, a name which is said by some authors to signify that the disease is of syphilitic origin, while others hold that it is tubercular. At the best it probably means that our knowledge of such bases is not yet complete. The doubts which arise regarding treatment chiefly concern operative measures. If the disease be tubercular, should the eye be excised, in the hope of removing a centre of infection, and thus preventing general tuberculosis? If syphilitic in nature, active antisyphilitic treatment is indicated, and these measures would but doubtfully conduce to the cure of tubercle. The records of cases seem to point to enucleation as the best treatment for primary intra-ocular tubercle; on the other hand, in a certain number of cases recovery has ensued from disease which had all the clinical characters of tubercular iritis. One point seems fairly well established, viz., that if any operation is undertaken it should be removal of the entire globe; iridectomy performed with the intention of removing the diseased portion of iris has been almost uniformly unsuccessful.—*British Med. Journal*, Dec. 21, 1889.

Creoline in Erysipelas.

The antiseptic and inoxious properties of creoline have suggested its use as an application in erysipelas. As such, it has given excellent results both in Austria and Germany. The preparation may be employed alone or with iodoform. An agreeable form is the following salve:

℞ Creolini . . . . . ♏ xxxxviij.
Lanolini . . . . . ℥vjss.
M. et fiat unguentum.
Sig. Apply the salve so as to cover the erysipelatous surface and overlap it about one-half inch on all sides.

The affected parts should further be protected with a piece of mackintosh or protective.

If the addition of iodoform is desired the following prescription will be found efficacious:

℞ Creolini . . . . . f℥ss.
Iodoformi . . . . . ℥ij.
Lanolini . . . . . ℥xx
M et fiat unguentum.
Sig. Use similarly to former salve.

This preparation is more active than the plain creoline salve. When hairy portions of the body are affected it is well to shave such before applying the ointment. The treatment should be continued for three or four days after the disease has ceased to spread.—*Gazette Hebdomadaire*, Nov. 15, 1889.

Infantile Dyspepsia.

Dr. Le Gendre, in the *Concours Médicale*, Nov. 26, 1889, speaks most highly of value of papaine and lactic acid in the dyspepsia of very young infants. He uses the following prescription with great success:

℞ Papaini . . . . . gr. viij
Acid. lactici . . . . . gr. xxxj
Syrupi simpl. . . . . f℥ xiij
Aquæ dest. . . . . f℥ v
Tinctur. vanillæ . . . . . q. s.
M. Sig.: A small teaspoonful immediately after each feeding and every intervening hour.

Vaseline Cerate.

The following is an excellent formula for vaseline cerate:

℞ Vaselini albi . . . . . ℥ xvj
Ol. amygdaliæ dulce . . . . . f℥ jss
Ceræ albæ . . . . . ℥ jss

Melt this mixture at a gentle heat, incorporate in a warm mortar and gradually add one and one-half ounces of rose water. For vaseline cold cream, replace the wax with an equal quantity of spermaceti and add perfume as desired.—*Journal de Méd.*, Nov. 24, 1889.

Treatment of Coryza.

Mr. James McMunn, in the *British Med. Journal*, Dec. 14, 1889, states that for many years he has found the following combination most efficacious in the treatment of cold in the head:

Salicylic acid, ... 4 parts.
Tannic acid, ... 6 "
Subnitrate of bismuth, . . . 90 "

The Subcutaneous Administration of Iron.

Professor Rosenthal, of Vienna, writing in a Pesth medical journal on the subcutaneous administration of iron, states that this method is advantageous in the cases of delicate neurasthenic persons who suffer, as such often do, from atonic dyspepsia. Here even small doses of iron taken by the mouth will sometimes produce disorder of the stomach. In severer forms of disease, such as pernicious anemia, malaria cachexia, and the graver forms of leukemia, there does not appear to be any advantage in the employment of the hypodermic method of administering iron. Two new preparations are recommended by Professor Rosenthal for hypodermic use—viz., the peptonate and the oleate of iron. He states that he has never seen any bad results follow subcutaneous injections of iron preparations, and he explains the fatal consequences that have occasionally been reported as following injections into vascular tumors of the head, by the fact that the vessels composing such tumors are generally closely connected with the veins of the dura mater. He has frequently seen venous enlargements of the legs undergo shrinking after being injected with dilute perchloride of iron, no dangerous symptoms ever ensuing.—*Lancet*, Dec. 14, 1889.

Healing Salve.

The following salve will be found a useful application for chapped lips and slight abrasions:

℞ Boric acid . . . . . 2 parts
Vaselin . . . . . 30 "
Glycerin . . . . . 3 "
M.

The above may be perfumed by the addition of a few drops of attar of roses, if intended for a lip salve.

Codeine.

Codeine being but slightly soluble in water, is best given in pill or powder form or in solution in alcohol and syrup. The following prescriptions for the drug are recommended by Dr. Kaufmann in the *Berliner klin. Wochenschr.*, Nov. 4, 1889:

I. Codeine Pills.

℞ Codeini . . . . . gr xv
Extr. gentian,
Pulv. rad. liquir . . . . . āā q. s.
f. pil. No. xxx.

II. Codeine Mixture.

℞ Codeini . . . . . gr iij
Alcoholi . . . . . f℥ jss
Syrupi . . . . . f℥ iijss
M. Sig. One teaspoonful to one tablespoonful for one dose.

When given hypodermically the muriate or phosphate of codeine should be used, as either of these salts are easily soluble in water. The average dose for codeine is ¾ grain, or three grains daily.

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The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

MENSTRUATION AND PSEUDO-MENSTRUATION AFTER DOUBLE OVARIOTOMY, AND REMOVAL OF THE UTERINE APPENDAGES.

One of the most interesting phenomena which sometimes follows double ovariotomy, or removal of the uterine appendages, is the persistence of menstruation, or a more or less periodical metro-staxis. This is usually utterly unexpected to the patient, and may cause her to lose some of her faith in medicine as a science, or in the operator as a successful practitioner. The phenomenon is also of interest to the physician because of the physiological and pathological questions involved. That the occurrence is not very rare may be seen from the fact that statistics seem to show that from five to ten per cent. of women who have submitted to double ovariotomy, or the removal of the uterine appendages, afterward go through the phenomena of menstruation or pseudo-menstruation. Wylie gives ten per cent. as the number; Battey four cases out of fifty-four.

As to the causes of this persistent bleeding there is a general agreement among operators; and it is attributed either to leaving behind some portion of ovarian tissue, or to certain diseased conditions in the pelvic peritoneum, blood-vessels and connective tissues, or to disease of the uterus. Theoretically it is possible always to remove the uterine appendages entire, but in practice it is at times exceedingly difficult. Even though the ovary is freed sufficiently to pass the ligature below it, it is sometimes necessary to "scalp" the ovary to leave a stump sufficiently good to prevent the ligature from slipping. Also in enucleating ovaries densely adherent to the floor of the pelvis, the ovarian tissue is at times torn, and portions are left behind. Besides this, ovarian tissue may remain in the form of supernumerary ovaries, which exist with sufficient frequency to require consideration.

Menstruation may or may not continue when ovarian tissue is left—this depending largely on the nature of the blood-supply to the ovarian tissue.

Hegar states that incomplete extirpation of the ovaries, and the presence of a third ovary are less frequently the cause of recurring hemorrhages following operation, than is generally believed. A greater influence is exerted by vascular dilatations, stasis and hyperemia of the pelvis, such as are often present before operation or may develop later. More pronounced pathological processes, such as inflammation of the pedicle, ligaments, other parts of the pelvic peritoneum, and connective tissue, and tuberculosis, produce periodical or irregular hemorrhages, partly by a direct influence on the circulation, partly by nervous agency. Olshausen agrees, substantially, with this view, but considers that the most frequent cause of pseudo-menstruation after operation is the persistence of pelvic inflammation, espe-

cially if more acute inflammation or abscesses develop.

Persistent uterine hemorrhage is at times due to uterine disease, such as adenoid growths in the endometrium, fibroid tumors —especially of the submucous variety,— polypi, or malignant degeneration.

Several practical conclusions are to be drawn from these well ascertained facts. As it is by no means positive that the complete menopause will be established, after double ovariotomy, or the removal of the uterine appendages, patients undergoing such operations—or certainly near friends of the patients—should be told so plainly. Under existing circumstances the operator should feel only relatively disappointed when a complete menopause does not result after the double operation; and should set himself diligently to work to cure the particular morbid condition which is causing pelvic and uterine congestion. In the exceptional cases, in which the ovaries have not been entirely removed, or in which supernumerary ovaries exist, and true menstruation continues, a second operation and exsection of the remaining ovarian tissue may be necessary. Also, when infection of the pedicle causes abscess about the ligature, it may be necessary to evacuate the pus and remove the ligature by secondary abdominal section. More commonly, in cases which have been drained, pus is discharged through the drainage track until the ligature comes away or is removed. Pus formation about the ligature does not occur so frequently in cases which have not been drained, largely for the reason that death is likely to take place in these cases, from sepsis or peritonitis, before abscess results. Where the recurring metrostaxis is due to uterine disease, thorough curetting of the endometrium may suffice to cure it. When malignant degeneration of the womb exists, hysterectomy, or exsection of the degenerated tissues is indicated.

The production of essential oil of geranium in the island of Re-union in the Indian Ocean is assuming considerable proportions.

SNAKE BITES.

There is perhaps no member of the animal kingdom which is so grossly misjudged and misunderstood as the snake. Popular fallacies concerning the snake are very numerous, even among well-informed people. There is a widespread idea that snakes are slimy creatures capable of springing great distances. In truth, the snake is smooth and dry and cannot spring further than two-thirds of its own length. Again, the pugnacity of the snake is greatly overrated. Non-poisonous snakes are most timid, and will scurry out of sight as soon as they are discovered. Poisonous snakes are, as a rule, more sluggish; and when disturbed, or hurt, will generally show fight. Careful inquiry of persons who have been bitten by reptiles will, however, elicit the fact that they either stepped upon, hurt, or surprised the animal that injured them. Stories of snakes chasing people for long distances are of very questionable veracity.

There are two questions which are frequently asked by travelers in countries were snakes abound: first, how can one tell the difference between the bite of a poisonous and that of a non-poisonous snake? Second, what is the best immediate action if bitten by a poisonous reptile, and far away from medical attendance?

The first question is easily answered. Poisonous snakes bite, and then let go; non-poisonous snakes retain their hold. The wound inflicted by a poisonous snake is very slight, and consists merely of two fang punctures, thus: . .

On account of its apparent insignificance it is frequently referred to as a "sting." The wound inflicted by non-poisonous snakes is much more severe, and would look something like this: ⋮ ⋮

As the short, but lance-like, teeth of harmless snakes are set backwards in the jaw, they become caught in the wound, and, if the victim pulls the reptile forcibly away, his flesh is torn and an ugly laceration is

inflicted. Still, such a wound heals wonderfully quickly and without any unpleasant symptoms. Another, and almost distinctive feature between poisonous and harmless snakes is their form and appearance. Harmless snakes are generally slim and bright in color; whereas poisonous ones are thicker, heavier looking, and more neutral in hue, and are frequently mistaken for twigs or small branches when lying in the road.

Regarding the treatment of snake bites a great deal has been said and written. In the REPORTER, July 20, 1889, Dr. L. J. Jones, of Moscow, Mo., in an article on this subject refers to the so-called "Bibron's antidote," a mixture of iodide of potassium, corrosive sublimate and bromine. Although excellent results are said to have been obtained with this mixture, Dr. Weir Mitchell regards them as apochryphal and the remedy as worthless. Again in the REPORTER for July 23, 1889, Dr. C. R. Early, of Ridgway, Pa., writes of the efficacy of pure olive oil. Lately, also, the hypodermic use of a weak solution of carbolic acid injected directly into the punctures has been spoken most highly of.

Whatever the vaunted efficacy of these and other antidotes may be, it is seldom that they are at hand at the time of the bite, and the necessity for immediate action is most evident. Regarding the best procedure in such cases, if far away from help, Dr. S. Weir Mitchell, in an article entitled "The Poison of Serpents," in the *Century*, August, 1889, says: "If the wound be at the tip of a finger, I should like to get rid of the part by some such prompt auto-surgical means as a knife or a possible hot iron affords. Failing these, or while seeking help, it is wise to quarantine the poison by two ligatures drawn tight enough to stop all circulation." Dr. Mitchell further says that, on account of the heart weakness, which is made worse by emotion, the patient may need some stimulus to enable him to get home, and that as soon as possible some one should thoroughly infiltrate the seat of the bite with permanganate or some other agent. By working and kneading the tissues the venom and the antidote may be made to come into contact, and the former be destroyed.

To our mind, courage shows itself in the wrong direction, in chopping off the bitten finger or toe; which is a very foolish and dangerous proceeding. The most sensible and most efficacious procedure seems to be as follows: Immediately after having been bitten, and after convincing one's self that the bite is that of a poisonous snake, tie one or two tight ligatures at some distance above the punctures. For this purpose a string or cord tied loosely around the finger or a handkerchief tied around the arm, and then twisted up tightly with the aid of a small stick, answers admirably. Then thoroughly lacerate the wound, fully as deep as the punctures, with a knife or a sharp stone. Wash the parts with water or, in an emergency, with urine. Keep moving, and do not despond. The ligature should be loosened in about fifteen minutes to prevent gangrene but may again be tightened until help is obtained. On reaching home, a stiff glass of hot whiskey or rum-punch should be taken, or any other stimulus, if this is not at hand. The subsequent treatment depends upon circumstances. In the majority of cases stimulants and rest are all that is needed. Locally, hot fomentations or poultices may be applied. If necessary, carbolic acid solution or other antidotes should be injected into the wounds; this is, however, rarely required.

THE DURATION OF A LIGHTNING-FLASH.—The researches of Trouvelot, Colladon, and Dufour have shown that the duration of a lightning-flash is not infinitesimal, but that the flash lasts a measurable time. For instance: if one sets a camera in rapid vibration, and exposes in it a plate so as to receive the impression of the flash, it is found that the impressions appear widened out on the negative, showing the negative to have moved during the time the flash was in existence.

Book Reviews.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the Reporter.]

INTRODUCTION TO THE TREATMENT OF DISEASE BY GALVANISM By Skene Keith, M. B., F. R. C. S. Ed., Late Special Assistant Surgeon, Royal Infirmary, Edinburgh. 8vo, pp. 62. London: Truslove and Shirley, 1889. Price, $1.25.

The author modestly states that this book is intended only for those who have no time, and perhaps no inclination, to study larger works on the use of electricity in the treatment of disease. He discusses in simple language various electrical phenomena, and also the laws of electricity which have a special bearing upon the use of the galvanic current in therapeutics. The book is well and plainly written, and the uninformed reader will undoubtedly derive much information from it; and perhaps be stimulated to study more comprehensive treatises. In connection with this book it is interesting to note that the author's father, Thomas Keith, one of the most accomplished abdominal surgeons now living, and one whose successful operations of hysterectomy have never been equaled, gives Apostoli's method of treatment the preference over cutting operations, as the primary method of treatment for fibroid tumors of the womb.

A GUIDE TO THE DISEASES OF CHILDREN. By James Frederic Goodhart, M. D., F. R. C. P., Physician to Guy's Hospital, and to the Evelina Hospital for Sick Children, etc. Rearranged, revised and edited by Louis Starr, M. D., Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania, etc. Second American, from the third English edition, with numerous formulæ and illustrations. 8vo, pp. 772. Philadelphia: P. Blakiston, Sons & Co. Price, Calf, $3.00; Sheep, $3.50.

Goodhart's "Diseases of Children" has been very favorably known in this country for several years, partly because of the great merit of the book itself, and partly because of the excellant reputation enjoyed by its American editor, Dr. Starr. In the third English edition—from which this second American has been made—Dr Goodhart had thoroughly revised the book, but had not materially altered it. He has, however, endeavored to make it more useful to the student and young practitioner by amplifying the directions relating to diet in infancy—unquestionably a subject of the highest importance, and generally by inserting, where it has been deemed possible, such recent methods of treatment as have either proved, or promise to be, successful. The American editor, on the other hand, has taken greater liberties with the book than he did in his previous edition. He has rearranged the original matter so as to secure greater symmetry and ease of reference, and has omitted the brackets which formerly surrounded his suggestions. The reason for the latter change is declared by Dr. Starr to be the belief that his additions are in the spirit of Dr. Goodhart's writings and entirely in accord with his views. In some respects, therefore, it will be seen that the present edition constitutes a new book.

The book as it stands is an admirable guide to the diseases incident to childhood. The Introduction will repay careful reading. The effort appears to have been made to give the student a good insight into the nature of the diseases mentioned, and to place before him a clear description of the symptoms as they are seen at the bedside. This effort has been successful, and cannot be too warmly commended. The author (or the American editor) does not devote as much attention to the treatment of pneumonia as we could wish, and he omits all consideration of cerebro-spinal meningitis. His remarks on enuresis, however, are most excellent, and for making them he deserves the thanks of all parents and of all afflicted children.

TRANSACTIONS OF THE TEXAS STATE MEDICAL ASSOCIATION, Twenty-first Annual Session held at San Antonio, Texas, April 23, 24, 25, 26, 1889. 8vo, pp. 338. Austin, Texas, 1889.

The size of this volume speaks well for the interest which the members feel in their State Society. The papers are too numerous to enable one even to mention them all. Dr. H. A. West, of Galveston, in his paper on "Continued Fevers in Texas," says that typhoid fever occurs in Austin, and in various parts of Texas, despite the fact that a few do not meet with the disease; and that it does not occur in extensive epidemics, but sporadically. He thinks it is comparatively infrequent, and of mild type. Dr. George Dock, of Galveston, makes some instructive remarks upon the "Parasites found in Malarial Blood." Dr. Dock is well qualified to speak on this subject, and, as was to be expected, his remarks are clear, terse, and to the point. The same author also has a paper on "Leprosy—with a Report of Two Cases." He assumes that leprosy is a specific infectious disease, caused by the bacillus of Hausen and Weisser; but is forced to admit that the manner in which his patients (two men) acquired the disease is unknown.

These two men, for a period of at least thirteen years, moved among their fellows and in intimate relations with their wives and children; yet, he says, so far no other case of the disease has been acquired from them. Dr. Dock thinks the study of these cases will show that contact alone even when intimate and long-continued, cannot be a source of danger, and that other factors, as predisposition (of which we know nothing) and solutions of continuity, must play the most important part.

The volume before us is well printed, and altogether makes a very favorable impression.

Literary Notes.

We have received the first number of the *Kansas Medical Catalogue*, which is to be issued monthly at a subscription price of $1 a year. The first number contains twenty pages of reading matter, each about the size of that of the Reporter. The Editor is Dr. F. F. Dickman, and the place of publication is Fort Scott, Kansas.

London Post-Graduate Course.—The London post-graduate course was opened by an address by Mr. Jonathan Hutchinson, President of the Royal College of Surgeons, on "The Aims and Methods of the Post-graduate Course," at the rooms of the Medical Society in Chandos Street, on Jan. 8.

Notes and Comments.

The Epidemic of Influenza in St. Petersburg.

Until quite recently an epidemic of influenza, which has now assumed serious proportions, both in Europe and America, was raging in St. Petersburg and some of the suburbs and neighboring towns—Peterhof, Gatchino, and Cronstadt amongst others suffering severely. In the schools of all grades from a quarter to a half of the pupils and teachers have been absent; the military hospitals, too, were so crowded that many of the men had to be treated in the barrack rooms, and the ordinary drill was seriously interfered with. Business was carried on but very partially, owing to the number of principals and employees who were laid up. The medical men—that is, those of them who were so fortunate as to have escaped—were "run off their legs," and the chemists have been doing a thriving trade, chiefly in the sale of quinine to the public, who have largely come to understand the value of the drug in influenza. It is stated that one pharmacy of moderate size sold as much as a pound of quinine in two days. Dried raspberries, too, were reported to be so much in favor that it was impossible to procure any. In order, apparently, to make up to the public for the difficulty of procuring medical attendance, the lay press kindly took upon itself to instruct the uninitiated in the medical aspects of influenza. Thus, one of the first of the daily journals gravely stated that influenza was liable to be complicated with pleurisy, eczema, bronchitis, pulmonary phthisis, nephritis, otitis, catarrhal pneumonia, vaginitis, scabies, lymphadenitis, and soft chancre!—*Lancet*, Dec. 7, 1889.

Carbolic Enemata in Dysentery.

In the St. Petersburg weekly *Rüsskaia Meditzina*, No. 19, 1889, p. 294, Dr. Ivan S. Kildueshevsky, of Bendery, describes forty-four consecutive cases of severe epidemic dysentery (in soldiers), successfully treated with washing out the large bowel with a weak carbolic acid solution, once or twice daily. The enemata (from one-and-a-half to two pints of filtered water containing two or three grains of the crystallized acid) were made with an Esmarch syringe. All the patients recovered, the average hospital stay being about twenty days. The stools acquired a normal character about the fifth day of the treatment. The same remedy proved similarly successful in the author's own case. As far as Russia is concerned, the method was introduced by Drs. Shtchegloff and Kaxmpf.

A Case of Arsenical Poisoning.

A case involving the charge of wilful murder has just been tried in the County Limerick, Ireland. The prisoner, it seems, wanted to get rid of his father-in-law in order to secure his life insurance. In the stomach of the dead man 23 grains of arsenic were found, and as it was proved that the prisoner had made attempts to procure arsenic under false pretences, he was convicted of murder and sentenced to be hanged.

Tuberculosis from Cigars.

It is stated that a German physician, on examination of a number of cigar tips, found that many of them were infected with tubercle bacilli. The makers were tuberculous, and in the manufacture of the cigars, moistened the tips with their saliva.—*Canada Lancet*, January, 1890.

Sanitaria for Tuberculous Children.

Dr. Léon Petit, in a paper read before the Société Française d'hygiène (Journal d'hygiène, Sept. 5, 1889), stated that a number of prominent French physicians were interested in the establishment of sanitaria for the gratuitous treatment of poor children. Nine years ago the hospital of Villepinte was established for the treatment of tuberculous young girls, and now has more than two hundred beds. Unfortunately young boys are not respected by this disease, and an attempt was made to establish a second asylum for their reception; this was successful, and the Armesson Hospital, containing forty beds, has been opened. The Association had been offered a large tract on the Mediterranean, situated in a forest of pines at the base of the Esterel Mountains, for the establishment of a convalescent sanitarium. He recommends the establishment of sanitary colonies for those that have been bene-

fited by the sanitaria. because to these children the cities are dangerous, as they favor the reappearance of what may, in outdoor life, become a latent disease. It is to be hoped that this Association will succeed in realizing their ideal, and the experiment will be watched with much interest.—*New York Medical Journal*, Jan. 11, 1890.

Drunk or Dying.

These cases are among the most difficult to deal with that can occur in hospital practice, and it is no wonder that young house surgeons dread the very name of them, associated as it often is with offensive remarks at inquests and abusive newspaper paragraphs. Some excellent remarks on the subject were not long ago made by Mr. Durham at Guy's Hospital, London, and quoted in the *London Med. Recorder*, Dec. 20, 1889, from which we extract the following "aphorisms" as likely to be useful to practitioners who are by way of being called upon to treat "drunk or dying" cases. After saying that in any doubtful case it is best to err on the safe side, Mr. Durham went on to point out that the cases might be divided into three classes:—First, those who lay quietly and comfortably in bed upon their backs remembering little of the accident, but quite happy. Second, those who tossed the clothes off, were irritable, refused medicine, and would not lie still. Third, those who lay exactly where they were put, whether the position was a comfortable one or not. Of the first class no fears need be felt; they would probably do well. The second should be regarded with suspicion. Of the third there was cause for the gravest anxiety.

English Leprosy Fund.

It is announced that the Prince of Wales took the chair at a public dinner at the Hôtel Métropole on Monday, Jan. 13, for the purpose of appealing to public sympathy to aid in the promotion of a National Leprosy Fund. It is proposed that the interest arising from such fund should be devoted to the medical treatment and care of indigent lepers in the British Empire, and that a sum of money be set apart and placed under the control of trustees for the endowment of two scholarships, one student to make the United Kingdom and the remainder of Europe his field of investigation, and the other to go abroad and study the disease in India, China, the colonies, and elsewhere. There are, at present, two lepers in London.

Comedones.

For the removal of "black heads" or comedones, Dr. Unna used the following application:

China clay	4 parts
Glycerine	3 "
Acetic acid	2 "
Perfume, sufficient.	

The parts affected should be covered with this ointment in the evening, and, if necessary, during the day. After several days, all the comedones can be easily expressed, most of them coming out on washing the parts with pumice stone soap.

Another entirely different treatment is proposed by Dr. McCasey, who, having noticed that comedones were easily pressed out of the skin of a patient who had been under the influence of ether, devised the following mixture which he used in several cases with success:

Ether	f℥j
Carbonate of ammonium	gr. xx
Water, to make	f℥ij

The liquid was applied to the affected parts twice a day.—*Druggists' Circular*, Jan., 1890.

Danger of Strophantus in Renal Disease.

On examination of sections of the kidney after experimental poisoning with extracts of strophanthus, Dr. Ergasse invariably found the kidneys hyperemic—partly in the cortex, partly in the medullary zone, but chiefly at the tips of the pyramids. He therefore warns us that clinically we must bear in mind that where there is coincident nephritis, preparations of strophanthus are contra-indicated, otherwise an increase of the renal trouble may readily supervene. There is pretty general agreement that the action of the drug is most satisfactory in mitral disease, care being always taken that the degeneration of the myocardium has not pro-

ceeded too far. Hence it is best not to prescribe it in advanced stages of heart disease, especially when this is accompanied by arterio-sclerosis and intestinal nephritis.—*Practitioner*, Dec., 1889.

The Progress of the Influenza in Europe.

Accounts daily received from the Continent show a rapid extension of the area involved in the prevailing epidemic. Indeed, it has truly become pandemic. The march of the disease has been almost steadily from east to west, and yet it has shown a certain capriciousness in visiting certain cities in the west (*e. g.*, Paris) before appearing in some that are situated further east. Having almost died out in St. Petersburg, it is still very prevalent at Vienna, where it shows no signs of abatement. In Berlin also it has continued to prevail, and has appeared in all parts of Germany, from Hanover in the north to Saxony in the south. It has appeared in Belgium at Brussels and Antwerp, and in Holland at the Hague. It has invaded Italy, cases being noted at Verona; whilst in Spain and Portugal, Barcelona, Madrid, and Lisbon have become centres of the epidemic.

The Berlin correspondent to the *Lancet*, Dec. 28, 1889, writes that the influenza epidemic has gained much ground during the last week or ten days in that city. Professor Senator declares that it has also assumed a somewhat severer character. In some cases the symptoms are so alarming that one might have taken them at first sight for severe cases of typhus. Apart from the usual symptoms observed were deep stupor, pains in the limbs, and general morbid irritability.

Injections of Defibrinated Blood in Chlororis.

In a thesis maintained by Dr. Antiq before the Faculty of Medicine of Lyons, he relates the results obtained by a novel method of treating chlorosis suggested long since by Teissier. The material employed is the blood of oxen defibrinated. About 5 ounces of this is injected *per rectum* twice a day for a week. The treatment is discontinued at the end of that period for a week, and then recommenced. Care should be taken to warm the blood over a water-bath before injecting, and the patient should be directed to retain it as long as possible, any colicky symptoms being overcome by the addition of a few drops of laudanum. According to the author, this treatment is more rapidly and certainly successful than any other at present resorted to. The proportion of red corpuscles in the blood promptly increases, and the mucous surfaces regain their normal color. He attributes the rapid improvement that takes place to the fact that the employment of defibrinated blood fulfils three indications—(1) restitution of the iron; (2) restitution of oxygen; and (3) restitution of the salts of potash and the chlorides. Dr. Huchard, commenting thereupon, mentions that, in a case of his own, he had succeeded in overcoming an anemia which had resisted all medication.—*London Med. Recorder*, Dec. 20, 1889.

Prolapsus Recti due to Stone in the Bladder.

At the last meeting of the American Pediatric Society (see *Transactions*, Jan., 1889), Dr. A. Caillé, of New York, reported the case of a female child, three and one-half years old, with the following history: About one year before presentation the child's gut was found prolapsed after each stool, and she appeared to be in great pain in passing her urine. She was taken to a number of physicians and dispensaries for treatment, and presented at almost all the clinics as a case of inveterate and severe prolapsus recti, and many methods of treatment were tried without affording the child the slightest relief or improvement. At his first examination Dr. Caillé found the child to be anemic, nervous, and cachectic in appearance, and suffering from diarrhœa and bronchitis. The rectum was prolapsed two inches, and during the examination it came down fully seven inches, and presented a slightly bleeding surface. A straining effort on the part of the child forced urine from the bladder, which was collected, and found to contain pus and much epithelium, as evidence of cystitus. The sphincter ani was relaxed to such an extent that three fingers could be passed through it without an effort. The child was then anæsthetized, and a more careful examination showed the presence of a large stone, free, in the cavity of the bladder.

Speedy removal of the stone was suggested,

and the supra-pubic operation decided upon, on account of the large size of the stone and the facility of access by this operation. The bladder was first thoroughly irrigated with a warm solution of boro-salicylic acid, and, after division of the skin in the linea alba, the patient was put in Trendelenburg's position, with head low and raised pelvis, by which means it was comparatively easy to avoid the reflection of the peritoneum. It was not found necessary to raise the bladder by inflating the rectum,—two fingers of an assistant passed into the rectum being sufficient to bring bladder and stone into a convenient position above the symphysis. The bladder was now incised and the large stone removed with some difficulty, thereby producing slight laceration of the margin of the incised bladder.

Owing to this slight and unavoidable laceration primary union was not contemplated, but the bladder was sutured, nevertheless, and the wound filled with loose iodoform gauze, and the usual antiseptic dressing applied. The temperature of the patient was normal throughout the entire healing process, except on the third day after operation, when it rose to 102° F. for a few hours. The process of healing was all that could be desired, excepting a small leak in the suture, which was detected on the fourth day. At the end of three weeks the wound had closed, and the child was discharged cured.

During the time of convalescence the rectum came down once, and not again afterwards. The stone was twice as large as a pigeon's egg and weighed twenty grammes. Its presence in the bladder of the child had evidently caused the rectum to prolapse as a direct consequence of frequent straining, and its removal permitted the parts to assume their normal and natural condition.

Phthisis in High Altitudes.

From a report by Dr. L. Schrötter on the distribution of phthisis in Switzerland, it would seem that the inhabitants even of high altitudes are by no means so free from phthisis as we are wont to suppose. The tables of deaths for the eleven years 1876–1886 show that phthisis is endemic in every part of Switzerland, not a single district being free from it. On the whole, the deaths from this cause are fewer in the high than in the low-lying districts, but it cannot be said that the mortality from this cause is inversely proportionate to the altitude. Wherever there is a large industrial population the phthisis mortality is considerable. Industrial populations always suffer much more than agricultural populations where the altitude is the same.—*Lancet*, Dec. 14, 1889.

Local Treatment of Diphtheria.

Regarding the local treatment of diphtheria, Mr. Alfred Stanley, in the *British Med. Journal*, Dec. 14, 1889, recommends the following most highly:

1. By means of a tube blow a portion, say half a drachm, of sulphur over as much as can be covered of the diphtheritic membrane.

2. Gargle with a solution of the sublimed sulphur, or, if preferred, with sulphurous acid mixture.

3. Inhalation of the fumes of burning sulphur. The first means should be used twice a day, night and morning, and the two latter ones every two hours.

Mr. Stanley claims that no fungus can possibly exist under the fumes of burning sulphur, and that its action is to completely shrivel up the diphtheritic membrane, putting to death the micrococci as fast as they are formed, the membrane eventually peeling off, leaving a healthy healing surface.

Erasion of the Knee-joint.

Mr. Joseph Collier, of Manchester, describes in the *Annals of Surgery*, Dec., 1889, the operation of erasion of the knee-joint. The operation itself is indicated especially in tubercular and synovial diseases of the joint. Erasion of the knee-joint was first performed in 1881. The mode of operation as performed by Mr. Collier is as follows: An incision, slightly convex downwards, is made from one femoral condyle across the middle of the patella to the other condyle, the skin is dissected upwards and the patella exposed; this bone is then sawn across, or, in the case of young children, divided with a stout scalpel and the two halves turned upward and downward. To do this, longitudinal incisions are made through the tissues on each side of both halves of the patella, upward as far as the upper limit of the synovial pouch and downward nearly to the anterior tubercle of the tibia. The lateral ligaments are freely divided and the whole of the anterior and lateral parts of the capsule together with the

semi-lunar cartilages and synovial membrane are cut away with scalpel and scissors, taking care to enucleate and dissect out the whole of the upper synovial pouch. All synovial membrane and pulpy material is removed from the neighborhood of the patella and its ligament. Next the condyles of the femur, crucial ligaments and upper end of the tibia are carefully cleaned, every particle of diseased tissue being cut or scraped away. Next by flexion and rotation of the loosened joint all the diseased synovial membrane and capsule at the back of each condyle and in the inter-condyloid notch, as well as behind and between the crucial ligaments, is completely removed. This is the most difficult part of the operation, but is in most cases possible without division of the crucial ligaments, provided the lateral parts of the capsule have been thoroughly removed. If the crucial ligaments are infiltrated with tubercular material, or if they really prevent complete eradication of the disease, they should be taken away, but it is better to preserve them if possible; they are, however, not essential to a good result. Great care must be taken to thoroughly remove the whole of the semi-lunar cartilages, and the synovial membrane at the back of the joint, since it is here that diseased material is likely to be overlooked, and here often caseous foci and even localized abscesses are found.

After thus dissecting away all the morbid tissue in the soft parts, often leaving the lower end of the femur quite stripped, if the disease has extended beyond the limits of the synovial membrane, the bones must be carefully inspected, and any little pits or doubtful spots in the articular cartilage or on the bony surfaces must be gouged out or scraped away. Still more care, of course, must be taken if any deeper focus of disease in the bone is laid bare by removal of the softer tissses. All morbid material must be taken away, but no healthy bone sacrificed. Since, as a rule, tubercular disease of the knee is primarily and principally synovial, the bone lesions in cases in which the possibility of erasion can be seriously considered will be found for the most part superficial and local. In some cases we employ the actual cautery (Paquelin) to sear any doubtful spots, but it is far better to cut wide of them.

After making quite sure that all disease is removed the joint is well douched with sublimate lotion, any visible vessels are ligatured and then the Esmarch's tourniquet is taken off, and arrest of the principal bleeding points secured. A mixture of equal parts of powdered iodoform and boracic acid is then well dusted over and rubbed into the surface and all recesses of the wound, the patella is sutured by catgut sutures carried through or around the two halves. Drainage is then provided for by forcing a blunt raspatory through the tissues at the back of the joint on each side of the limb, and cutting down upon it through the skin. A tube is passed through such aperture, and the front wound is then sewn up. After dusting the wounds with iodoform and boracic powder, a double layer of wet gauze is laid over the incisions and the whole knee packed thickly with wood wool wadding, of which a dressing some 3 or 4 inches thick, at least, should be used. This is firmly bandaged on and the limb fixed upon a bracketed back splint with a foot piece.

Treatment of Acne.

The following treatment for acne has given good results: the paste, given below, should first be spread on the skin to the thickness of the blade of a knife, and rubbed off in a quarter of an hour, after which the skin should be dusted with talc:

℞ Napthol . . . . . ʒ ijss
Sulph. precip. . . . . ʒ jss
Canolini,
Sapon. vicid . . . . . āā ʒ vj
M. et f. pasta.

Intertrigo.

Intertrigo, or chafed skin, is such a common affection that it is generally overlooked, except, perhaps, the application of any available salve. Yet it is often painful and may under certain circumstances result in eczema. Again, the application of unmedicated ointments may do considerable harm by increasing the superficial inflammation and becoming rancid. A simple and most efficacious salve is the following, which we quote from the *Journal de Méd.*, Nov. 10, 1889:

℞ Acid. borici . . . . . gr viij
Lanolini . . . . . ʒ jss
Vaselini . . . . . ʒ ijss
M. et fiat. unguentum.

NEWS.

—Madrid, Spain, has one physician to every seven hundred of its inhabitants.

—Dr. Ezra Comly, of Philadelphia, died suddenly on Jan. 4, 1890, aged 49 years.

—A committee has been formed in Paris with the object or raising a monument to the memory of Philippe Ricord.

—At a meeting of the New York Academy of Medicine, held January 2, Dr. R. C. M. Page was elected Vice-President.

—It is stated that vaccination is being introduced among the natives of the Lower Congo by the doctors of the Belgian Expedition.

—The total number of cases of influenza in Berlin on January 12 was estimated at 400,000. There have been 650 deaths due to the disease.

—The new city hospital of Baltimore, Md., was formally taken charge of last week by the faculty of the College of Physicians of that city, on which occasion a reception was given to the medical profession at large.

—"La Grippe" is at its height in Michigan. According to the report of the State Board of Health, for the week ending Jan. 4, 77 per cent. of the physicians heard from reported the prevalency of the disease.

—It is reported from Ingersoll, ten miles west of Texarkana, Ark., that a woman gave birth to four finely formed and well developed girl babies on Jan. 11. The mother is doing well, but the father is reported to be prostrated from sheer joy.

—Cleveland, New York, has a new city hospital containing one hundred and fifty beds. The patients are all under the care of one physician, who receives a salary of $1,200. There is no visiting staff, and all work, surgical as well as medical, falls upon the single medical officer.

—The assessors and reporters of New York have been trying to find out the value of the property held by the New York Hospital. The managers of the institution, claiming that its property, being exclusively for charitable uses, is untaxable, refuse to disclose the amount of its possessions.

—At the recent trial of a quack in Alabama, for violating the provisions of the medical statute, and his conviction, it was ascertained that there was no penalty affixed to the crime. The alleged reason for this is that the law was so tampered with during its passage through the Legislature that the penalty was omitted.

—The Montgomery County Medical Society held their regular meeting at Norristown, January 8, and Dr. Alice Bennett, resident physician at the State Hospital for the Insane, was elected president. It is not known that a woman physician has ever before held this office in a medical society, composed almost exclusively of men.

—The Jewish Hospital Association, of Philadelphia, held its twenty-fifth annual meeting Jan. 12. The report showed that 432 patients were treated in the hospital and 1,380 in the dispensary, a total of 1,812 persons. The receipts for the year were $30,162.63 and expenses $29,677.54, leaving a balance in the treasury of $485.09.

—Lewis Hall Sayre, M. D., a son of Dr. Lewis A. Sayre, died suddenly during the night of the 2d inst. The deceased was a graduate of Bellevue Hospital Medical College, of the class of 1876, and at the time of his death was the President of its Alumni Association. Dr. Sayre was associated with his father and with his brother in practice, and was well-known among the profession.

—The Presbyterian Hospital, of New York City, has so far recovered from the effects of the fire as to be in good working order with sixty-four beds. The new dispensary building is used as a ward. Being very thoroughly ventilated, it is admirably adapted for this purpose. It will accommodate forty patients. The chapel in the administration building has also been fitted up as a ward containing twenty-four beds.

—Dr. Oliver P. Rex, of Philadelphia, died from the effects of the grip on Sunday, Jan. 5. A few days before he was taken with the disease, but he kept up hoping to fight it off and forget it in the duties attending an extensive practice. Pneumonia developed, however, and brought about a fatal termination. He was a graduate of the University of Pennyslvania, and was an attending physician to the Jefferson College Hospital and Presbyterian Hospital.

—The Medical Society of the District of Columbia has elected the following officers for the ensuing year: President, Dr. S. M. Burnett; Vice-Presidents, Drs. G. N. Acker and G. W. Cooke; Treasurer, Dr. C. W. Franzoni; Corresponding Secretary, Dr. T. C. Smith; Recording Secretary, Dr. S. S. Adams; Librarian, Dr. J. H. Mundell; Board of Censors, Drs. G. C. Ober, J. T. Winter and L. L. Frederich; Board of Examiners, Drs. C. H. A. Kleinschmidt, G. N. Acker, S. S. Adams, L. Eliot and H. L. E. Johnson.

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Clinical Lectures.

CHRONIC INFLAMMATION OF THE HEART AND ARTERIES.[1]

BY ARTHUR V. MEIGS, M. D.,

VISITING PHYSICIAN TO THE PENNSYLVANIA HOSPITAL.

Gentlemen: This man, 22 years old, single, born in England, and having lived two years in America, was admitted to this hospital, September 2. He was employed in a dye-house connected with a wool factory, but during the twelve weeks before his admission he was unable to do any work. His family history is negative. He had rheumatic fever four years ago. He chews tobacco to excess, but does not drink. The first symptom he noticed in connection with his present attack was shortness of breath on exertion. One week later he says his belly was so swollen that he could not button his trousers. This swelling would subside during the day. About seven weeks before his admission he began to cough and expectorate a dirty phlegm. Some time later he also noticed that he urinated frequently and that his urine was often blackish. His appetite was good, and his bowels normal. His feet never swelled and he perspired freely. His temperature on admission was 100½° F. During the first three weeks after admission he had moderate fever, only once as high as 102½°; what I should call feverish, rather than actual fever. On admission his urine was dark amber color, cloudy, with a specific gravity of 1.011, and slightly albuminous. The microscope showed it to contain red blood corpuscles, loose epithelium and epithelial casts. He says that he had previously always enjoyed good health, and that his sickness came on gradually. This test-tube contains some of his urine of this morning. The upper portion has been boiled, and you

[1] Delivered at the Pennsylvania Hospital.

will observe there is a moderate amount of albumin.

I will now make a physical examination in order to ascertain if it will reveal anything bearing upon his condition. The moment I listen over the apex of the heart I discover a loud murmur. On inspection I notice increased pulsation in the precordial space, and pulsation in the epigastrium, which is never seen in health. This impulse is heaving and forcible in character. On palpation it is perceived that the heart beats over an increased area and with increased force, and there is a slight sensation of thrill imparted to the hand. In percussing over the heart some rule should be followed, and the one I adopt is to percuss in a vertical line, one inch to the left of the sternum. The cardiac dulness should begin at the third rib. There is here slight impairment of resonance at the second interspace, almost dulness at the third rib, and flatness at the fourth rib, so there is a slightly increased cardiac dulness upward. Transversely we percuss at the level of the fourth rib. Slight dulness begins one-half to one inch to the right of the sternum, and extends to a little to the left of the nipple line. This is more than normal, and we have an increased transverse dulness of from one to one and a half inches. The cardiac and hepatic dulness run so closely together that we can more readily find the lower boundary of the heart by looking for the apex beat. We find it in the fifth interspace and some distance to the left of the nipple line. Auscultation is the most important means of physical diagnosis in such cases. We listen at four different points for the four different sounds of the heart. The important thing to learn is the condition of the left heart. We listen at the apex for the mitral sound, at the third left costal junction for the pulmonary, and the second right costal junction for the aortic sound, and at the left edge of the ensiform cartilage for the tricuspid sound. In auscultating I usually first use my ear, but by means of the stethoscope we can localize sounds more readily. At the apex I hear two sounds distinctly. The first has a thumping character, that is, it is accentuated; and then there is a very distinct murmur, somewhat prolonged, blowing and harsh. I proceed next to ascertain its time. Murmurs do not commonly displace sounds; they either follow or precede them, and the only way we can determine the time of a murmur is to find when the sound occurs and then notice whether the murmur precedes or follows it. I place my thumb upon the carotid pulse, for it is said if the murmur precedes this it is a presystolic sound, as the carotid pulse is believed to occur simultaneously with the systole of the heart. This is not exactly true. The first sound of the heart is caused by the closure of the mitral and tricuspid valves, and at the same time the heart strikes the chest wall. But it is some distance from the heart to the carotid artery in the neck, and a slight interval of time elapses between the apex beat and the corresponding beat of the cardiac artery, and if the pulse is delayed, as in this case, it is difficult to exactly tell the time of the murmur. This murmur distinctly takes place before the carotid pulse, and also slightly before the cardiac impulse itself. It is therefore a presystolic murmur, and occurs during the passage of the blood through the mitral opening. At the pulmonary area the second sound is accentuated, and the murmur is audible to a slight degree. At the aortic region both sounds are audible, the second is not accentuated and the murmur faint. At the left ensiform region both sounds are fairly good, and there is a faint systolic murmur, different in character from that heard at the apex. There is no murmur heard in the carotid artery except on pressure, and in the subclavian artery listened to just below the outer third of the clavicle there is likewise no murmur. The murmur at the tricuspid area is very common in enlargement of the heart and signifies nothing. In examining the lungs I find no dulness on percussion anteriorly, and the respiratory sounds are fairly good, with no râles. Posteriorly at the apices, and between the scapulæ, there is fairly good percussion resonance, but it is slightly impaired on the right side. At the bases we find impairment of resonance, of moderate degree, over the lower half of the right side, and on the left side of less degree. Over the lower half of the right side there is almost total absence of vesicular sounds, with some râles. On the left side there is more crackling, but the respiratory sounds are heard. Vocal resonance is more distinct on the left side, but vocal fremitus is alike upon both sides. If the chest were full of liquid there would be no vocal fremitus, so the trouble here is pulmonary, and not pleuritic. The liver dulness begins at the fifth rib slightly, so it is one-half to one

inch above the natural position. It also extends slightly below the costal border. The splenic dulness is also slightly increased, but this, as well as the hepatic dulness, may be due to an increased density of the lung tissue. The abdomen shows no distinct sense of fluctuation. His fingers are decidedly clubbed. His radial arteries are either somewhat stiffened, or else his pulse has the high tension character. One thing more in regard to this man's condition. On September 7 he had some difficulty and thickness of speech on rising in the morning. His tongue was slightly deflected toward the right, and the right side of his face seemed smoother than the left. This slight facial paralysis passed away in two days.

We have here a most complicated case, though a very ordinary one. We might say that this is a common attack of chronic Bright's disease, but that would be a very inadequate explanation of the condition found. We have evidence of brain disease, of lung disease, of heart disease, and of kidney disease. He has had apoplexy, which we might explain as arising from an embolus broken off from his diseased cardiac valves, but I do not think this was the cause, for it is not a common thing for an embolism to occur in chronic heart cases. The first symptom of which he complained was one connected with his heart. This was followed by the lung trouble. Then one or two weeks later his attention was drawn to his kidneys, and still later we have evidence of brain trouble. It would be easy to say that this was a coincidence, and that he had been affected with all four of these diseases, but this, it seems to me, would be but a weak explanation. It must be there is some connection between these troubles and that one is the cause of the others. I think we can find a solution in the fact that often there exists disease of the arteries and very commonly of the veins before the other conditions arise. The fenestrated membrane of Henle has in the normal condition nothing within it in arteries but the endothelium, but if the intima becomes thickened from inflammation from any cause, it may increase enormously occluding to a greater or less degree the calibre of the vessels. I show you here some illustrations of this condition taken from actual cases. The question which agitates the profession in cases of this kind before us to-day is which antedates the other, the heart or the kidney disease, or have we something preceding both and causing both. You must know that chronic heart disease is by no means always due to rheumatism but often arises gradually from slow inflammation of the lining of the arteries and heart. It is a very common thing that the first symptom complained of in these chronic cases is the lung trouble, and so we must go back of the heart and of the kidney disease in order to find the cause. It is likely that the trouble began in this man with his rheumatism, the other troubles arising from the endarteritis so produced.

The prognosis is bad. He has a damaged mitral valve, his kidneys have suffered considerably, he has suffered some injury of the brain, and has also inflammation of the lungs. However, he has no trouble so great at present as to be incompatible with life. If the relation is not further disturbed he may live indefinitely. Chronic Bright's disease often lasts a very long time. The outcome depends upon what will take place in the future; whether the already existing disease will progress or remain stationary, for if the latter, he may live a long time.

If I have impressed upon you the fact that in chronic heart disease you must look beyond rheumatism and overwork for a cause, I think my hour will not have been wasted. The contracted form of kidney is likewise due, I believe, to gradual changes in the arteries and veins rather than to a true inflammation in the kidney itself.

IDIOPATHIC HEMATURIA. — FIBRINOUS MOULDS OF THE URETER. —INTERSTITIAL NEPHRITIS FROM IMPACTED STONE.

BY JAMES TYSON, M. D.,

PROFESSOR OF CLINICAL MEDICINE, UNIVERSITY OF PENNSYLVANIA.

Gentlemen: I present you first to-day a girl 19 years old, who works at service and who had been attending in the dispensary for two weeks prior to her admission to the hospital. Her family history is negative, and she seems to have been free from sickness since childhood. Her present illness dates five weeks back, at which time blood appeared in her urine. With this well-marked hematuria, which had been sudden in its onset, she was admitted a week ago to the hospital. She had no subjective symp-

toms, and only one other objective sign, that of extreme pallor. She is otherwise well-nourished, suffers no pain and shows no signs of tenderness anywhere; neither does she exhibit any derangement of menstruation. There is a history of a slight tenderness in the region of the bladder some time ago, but this is now absent. The pallor I ascribe to the loss of blood through the urine. The latter, when first the hematuria appeared, was of such a bright and clear red color that it seemed almost as if it were pure blood. Hence the question arose whether the blood came from the urinary passages or not. The patient was catherized but still the urine was equally bloody, proving that the blood came from the bladder or kidneys. The next point to be determined was which of these possible sources was furnishing the flow. The presence of blood tube-casts in the urine would have been a positive proof that the trouble was renal; but no casts have been found. Still, although their presence would have been conclusive, their absence does not disprove the possibility of the hemorrhage having a renal source. We must look for further evidence. Blood from the kidneys seldom coagulates unless very abundant; but percolates slowly with the urine, and becomes intimately admixed. Occasionally, when copious, as we shall see later, it forms blood casts of the ureters in the form of long worm-like bodies. The blood from the kidneys is also darker in hue or rather of a less bright red color than from the bladder. On the other hand, hemorrhage into the bladder causes greater irritation and frequent micturition. These symptoms are entirely absent in this case. In the female we can make ourselves still more certain of the patient's condition by the use of Simon's dilators. Simon's dilators consist of six rubber cylinders graded in size, the smallest being 28 millimeters in circumference, and the largest 58 millimeters in circumference or nearly an inch in diameter. With these, the patient being under ether, the urethra is gradually dilated. Often number 5 will distend the urethra sufficiently to allow the passage of the index finger, which is introduced into the bladder while the middle finger is passed into the vagina. This examination has been made in this case with negative results. The most common cause of hemorrhage into the bladder in females is a villous growth on the bladder walls. None such was found. Nor was there any calculus present. We conclude, therefore, that the blood comes from the kidney.

If the hemorrhage is renal, what are its sources? In acute Bright's disease there is a small hemorrhage but it is never as copious as this. Quite a common cause of large hemorrhages is malaria. A therapeutic test will generally soon settle this question. Three grains of quinine every two hours will check the flow completely. This is a possible cause in this case, but I have never seen cases of this type originate in Philadelphia. They occur in intensely malarial districts; but, not only in our extreme South, as I have seen them from the valley of the Susquehanna or Juniata. This patient, although put on quinine, in large doses, failed to show signs of abatement of the hemorrhage, proving that the trouble was not a malarial one. A tumor of the kidney might produce such a hemorrhage. In sarcoma of this organ, it may be the first symptom; on the other hand, the malignant disease sometimes runs its course without the smallest flow of blood. Sarcoma is generally found in children; it is liable to be congenital and alters, to a great degree, the contour of the abdomen. Carcinoma, while appearing after birth, is generally also confined to children, although it is seen in adults occasionally. It is always associated with pain in the region of the organ.

Hemorrhage from the kidney is due sometimes to hemophilia, which is a curious constitutional condition, resulting from a peculiar state of the blood, characterized by bleeding from mucous surfaces. This disease is found markedly in certain families, and is apt to be associated in the cachetic stage with a dyscrasic state of the blood, *i. e.*, with an increase of the white corpuscles. There is nothing of that sort here; the cachexia in our patient is not the cause, but the result of the trouble. Copious renal hematuria is also associated with purpura, but there are no other purpuric symptoms in this case. Hemorrhage can occur in connection with calculus, especially when impacted; the flow of blood is, however, generally small and in this case there is nothing but the hemorrage to show the existence of stone. Hemorrhage due to stone is also intermittent.

Finally, there is a class of cases in which, despite the most careful search, no assignable cause can be found; in these cases where no explanation covers the statements, we are in the habit of applying the term, idiopathic

hematuria. Diagnosing by conclusion we are forced to conclude that our case falls in this category.

As to treatment, when possible the cause is removed, but frequently we are reduced to treating the symptoms as they arise. Astringents are usually presented, such as gallic acid in doses of 15 gains four times a day. Ergot may be used for its action on the muscular coats of the arteries. The persulphate of iron in one-half grain doses is often of service, especially when, combined with strychnine in one-thirtieth grain doses. Many stubborn cases of inexplicable hemorrhage, which will yield to no drugs, are cured by the use of astringent mineral waters, all which contain alum, or alum and iron, being useful. Most cases of this class will yield to this treatment. We will therefore order for her Rockbridge Alum Water in two-ounce doses four times a day.

[Four days after the commencement of the alum water, the patient's urine began to be intermittently bloody. A week later, the urine appeared, to the naked eye, to be free from blood. It hourly contained a small amount of albumin, probably due to the presence of a little blood ; still, a week later all trace of blood had disappeared.]

I now show you a second case, which is especially interesting as a companion picture to the first patient. She is forty-five years old, is married, and has had seven children, of whom three are still living, the youngest being seven years old. Eight years ago there appeared an aching pain in the left lumbar and iliac region, followed by shooting pains down the left leg and thigh. These attacks were followed by loss of flesh. After this condition had lasted some time she passed moulds of the ureters such as I here exhibit. Their transit was accompanied by severe pain in the course of the ureter, while bloody urine preceded and followed their discharge. These moulds are blood clots as thick as my index finger, four to five inches long, smooth in appearance. Some of them had to be drawn through the urethra. She applied at this dispensary for treatment in June, 1887, with the same symptoms, and was at once placed under treatment. She passed no clots for over a year. Microscopic examination of thin sections of these clots show them to be almost pure fibrin, and since they are moulds of the ureters the blood producing them can only have come from the kidneys. There are some other points which aid the diagnosis in this case which we did not have in the former. There is pain and tenderness in the left flank, over the left kidney, which can be produced by pressure even through her dress. It is, however, restricted to one side. It is probably caused by one of two conditions: malignant disease or impacted stone. The pain is compatible with either condition. But the long duration of the trouble and the slight influence on her general health makes the former less likely, and it is not unlikely we have an impacted stone. There is no curative treatment when a large stone becomes thus impacted other than by operation. This operation of cutting down on the kidney and removing the stone is growing common and is rendered comparatively safe by antiseptic surgery. But while we have no medicines which will dissolve a stone once formed, we can still relieve her suffering by making the passage of the clots easier. This latter object can be accomplished by the use of the alkaline diuretics, which will keep the blood discharged thin and the urine alkaline. The acidity of the urine does not interfere with the coagulation of the blood in the ureters, but alkaline urine does. We can also diminish the hemorrhage by the same remedies as we have already mentioned above.

The next case is in some respects similar to the latter. A man, sixty-two years old, by trade a carpenter, had four years ago a severe colic on the left renal region. This continued off and on for some months, then asthma appeared ; he became short of breath and œdema of the leg and feet appeared. Headaches are common with him and his urine contains albumin in small quantities and ocasionally casts. These are the symptoms of intestitial nephritis, and illustrate another of the consequences of impacted calculus, of a size sufficient to obstruct the ureter and cause colic. Notice the tortuous appearance of the temporal artery ; its calcification of the inner and middle coat is due to chronic endarteritis, a part of the symptomology of interstitial nephritis.

Drs. Maximilian and Jolles, of Vienna, claim to have discovered the bacillus of "la grippe." The discovery, they state, was quite accidental. The new bacillus is said to be quite distinct from Koch's comma bacteria, but resembles, somewhat, the bacillus of pneumonia.

COMMUNICATIONS.

A SUCCESSFUL CÆSAREAN SECTION FOR A LARGE BONY TUMOR CHOKING THE PELVIS.

BY HOWARD A. KELLY, M. D.,
BALTIMORE, MD.

Many of the curious and rare subjects over which scientific medical men spend much of their time in investigating and experimenting, are reproached by the physician at large, as not being sufficiently practical in their tendencies. The Cæsarean Section, however, is an operation which is relatively very rare, it has always excited the wonder and curiosity of our race, and, if I may use the language used forty years ago by Dr. Winckel, of Berleburg, it has, in these latest times, lost so much of its dangers as to become a comparatively safe operation.

It has the dignity of dealing with two lives at once, a woman in a position of such helplessness and extreme danger as to excite our sympathy to the highest pitch, an unborn child whose future possibilities are unlimited. It has the glory of literally snatching one or both of these lives from a certain death, and, to reiterate the statements of more writers than Dr. Winckel and with a peculiar and new emphasis from the 16th century down, "in these days it has become a very safe operation."

The case which I report in these pages is my third. Both of the other cases made a quick and in every way a satisfactory recovery, although one of the mothers had been in labor for two weeks, and had at the time of operation a pulse of 142. In the second case the parents refused craniotomy, and with the support of the greatest living authority, my friend Dr. R. P. Harris, I performed a successful Cæsarean Section; so satisfactory was the result to the patient that she recently declared that a premature labor with a small child which she had just passed through was much harder and more painful.

This third case is one of more than usual interest. The history in outline is that of a young woman who was pregnant for the fifth time; her previous labors, satisfactorily terminated, as far as the mother was concerned, but demanding all the skill of a very experienced accoucheur to free her from the burden of a dead and mutilated child. When placed in my care during her last pregnancy I found her near term, with the pelvis choked by a large bony tumor, springing from the sacrum and ilium on the right side.

A Cæsarean Section was performed at term, and she soon returned home after a normal puerperium.

The details of the case are as follows: Through the courtesy of Dr. Parcels, of Lewistown, Mrs. S. came to me, on the 25th of April, 1889. As she entered my private office with a letter from Dr. Parcels in her hand, she presented a peculiar and somewhat characteristic appearance, waddling along, but five feet high, sallow brown-skinned, with an unusually prominent belly. German by birth, 34 years of age, menstruation began at 20, married for seven years; she had been used to very hard work all her life. She had been pregnant four times, 6, 5, 4, and 3 years ago, the second birth was premature, at six months. The first three children were females, the last a male.

During the first six months of her first pregnancy, she had suffered from icterus. She began to be in labor one Sunday morning, the pains became very severe, continuing until Wednesday, when they became intermittent and feeble. Her medical attendant then gave an anæsthetic and extracted the child piecemeal. Puerperal fever followed this labor, confining her to bed for eight weeks. After rising she took cold and swelled in hands and feet, and was obliged to return and to remain in bed three weeks longer. In the third pregnancy labor lasted for two days, when it was completed by the physician, who broke off both feet and an arm, in his efforts to deliver the fetus. Another physician was then summoned, who completed the extraction. The placenta followed three days later. She was confined to bed by a fever for three weeks after this labor.

A letter from Dr. Parcels contains this interesting and graphic account of the two labors in which she was under his care: "I was called to attend her Jan. 8, 1885, and found the pelvis choked by a broad-based hard tumor, attached to the sacrum. The conjugate diameter was then estimated at 2½ inches.

"Failing to deliver her with the forceps Dr. Sheaffer (now deceased) administered an anæsthetic and forced the uterus down into the pelvis by pressure upon the abdomen, when I perforated the head, and crushed it with forceps.

"Even after removing a large part of the cranium, delivery could not be completed until podalic version was performed. The

whole operation was tedious and exhausting to the patient, but she made a good recovery.

"I was again called to her June 11, 1886, and found that the tumor had grown, increasing so that the conjugate now measured from 1½–1¾ inches.

"I again performed craniotomy and attempted to deliver, but with an experience quite different from the previous operation. After the cranium had been completely removed down to its base, I was still unable to extract the body until I had performed podalic version. The placenta was loosened and blood was pouring out at the vulva; my hand, which is small, passed the obstruction, but caught at the arm. Dr. Sheaffer pushed hard on the fundus, forcing the uterus down on to my hand. Long and faithfully I worked, fishing for the foot which I at last succeeded in catching and drawing outside the vulva.

"While I rested, Dr. S. made repeated efforts to deliver, but failed entirely for want of strength. Securing a good hold, with one foot against the bed, I pulled until I tore the leg off at the hip. The other foot was easily caught, and by its aid the mutilated trunk was delivered. The placenta followed. She had lost an enormous amount of blood, and her pulse was almost imperceptible. She recovered so rapidly, however, that in four days her condition was good."

I found upon the examining table both tibiæ markedly curved, and a rachitic pelvis. That her pelvis is small and flattened antero-posteriorly, is shown by the following measurements: Pelvimetry, distance between the anterior superior spines, 8¾ in.; between the iliac crests, 10 in.; from the last lumbar spine to the symphysis pubis, 7 in.; and between the two trochanters, 12¼ in.

The escutcheon, that is, the distribution of hair on or about the female genitals, was of a markedly male type, tending to run up into a point towards the umbilicus. A curious elongate rectocele pouted out of the vaginal outlet, 6 cm. in length by 4½ cm. in breadth.

Upon carrying the examining finger into the vagina it butted at once against a large tumor choking the pelvis, and projecting out of the pelvis under the pubic arch. The whole pelvic cavity was choked, from the superior strait down to the pelvic floor. The vagina lay flattened out over this mass, behind the left pubic bone, high up on the left side; on a level with the superior strait, was the cervix uteri, split posteriorly. The tumor evidently arose from the sacrum, and the adjacent part of the right ilium, filling out the pelvic cavity in such a way as to leave open a small crescentic area, widest at the position of the cervix, skirting the pelvic brim to the left sacro-iliac junction posteriorly, extending anteriorly as far as the ileo-pectineal eminence on the right side. This was the only communication from the abdomen into the pelvis. It was thus crescentic in shape, with the concavity directed backwards to the right sacro-iliac junction.

FIG. 1.

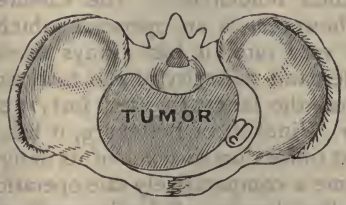


Fig. 1 shows way in which the pelvis is choked by the tumor, looking in at the superior strait.
c is the cervix uteri, split posteriorly, occupying the small crescentic lumen, the only free space not encroached upon by the tumor.

The tumor was dense throughout, yielding a crackling sensation at points, as if it were covered by a shell. At its widest point the lumen of the canal measured 2 cm. from tumor to pelvic wall; just behind the symphysis pubis the breadth of the crescent was 1 cm. The pregnant uterus lay obliquely across the abdomen, depending to the right side, the child also lay in this position, with the head entirely above the brim of the superior strait:

FIG. 2.

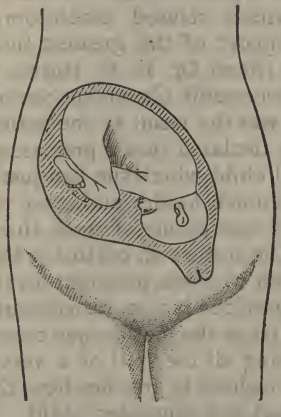


Fig. 2 shows the right obliquity of the uterus, the cervix being fixed as shown Fig. 1, at the *left* extremity of the transverse diameter of the pelvis, while the fundus lies in the *right* hypochondrium.

The circumference of the abdomen at the umbilicus was 91 cm. on May 4, and 95½ cm. on May 9, when the position of the child had changed so that its buttocks lay in the left hypochondrium, with its back applied against the anterior abdominal wall; the fetal heart beat was 130 per minute, heard with greatest distinctness ¾ in. below, and 4 in. to the left of the umbilicus.

The urine of a pale color, sp. gr. 1004, was free from abnormalities.

OPERATION.

Preparations were started a week before the operation; the diet list was restricted to soft food, with a little meat once a day, she received a daily bath quickening the activity of the skin and thoroughly cleansing the field of operation and the genitals. Vaginal douches of a 1-4000 bichloride solution were given twice daily.

The emunctories were very carefully watched and regulated, the bowels were very constipated and required constant attention. Slight incipient pains were felt for several days before the operation, which was performed May 10, at an appointed hour.

Dr. Robb, my assistant in the other cases, assisted here also with Dr. Noble, and Dr. Gramm, who gave the ether. Dr. F. Milliken stood at hand ready to take the child. Immediately before the final careful local cleansing which always precedes any abdominal operation in my clinic, she was carefully examined by the late Dr. Elwood Wilson, Dr. J. Taber Johnson of Washington, Dr. Parish of Philadelphia, and Dr. Platt of Baltimore. Drs. Robert P. Harris and Charles W. Dulles, who had previously examined her, were also present. The invited guests were Drs. Parcels, Githens, C. M. Wilson, Gibbs, Longaker, O'Farrel, Boyd, Farr, Lincoln, Reath, Steer, Ireland, Starck, Baldy, Haehnlen, Guthrie of New Mexico, Marks, Van Buskirk, Markley, Grimm, C. Goodell, McKelway, and Pugh.

The first important step was the preparation of the field of operation. All the genital hair was shaved off, as well as the fine hair over the lower surface of the abdomen, this was followed by careful scrubbing of the skin with soap and water, followed in its turn by a bichloride solution (1-1000).

The field was then isolated from all surrounding parts, first by two layers of gauze, one transversely across the epigastrium above, and the other across the upper part of the thighs below; a long and broad piece of gauze was then laid over the whole of the abdomen and the towels, and through a hole torn in the median line the whole uterine area was exposed for operation. Through this gauze and thus protected from contact with the remainder of the abdomen, the uterus was opened, and the child delivered. The incision through the skin was 20 cm. in length, one-third above and two-thirds below the umbilicus. The red uterus was thus exposed, and while Dr. Robb was engaged in pressing in both abdominal walls I made an incision 15 cm. in length in the uterus, starting at a point just below the fundus, down the median line up to the cervical area at the point of loose attachment of the peritoneum. The placenta lay just beneath the incision (Placenta prævia cæsariana). Pushing the hand between this and the uterine wall, the membranes were reached and broken through. With the gush of the amniotic fluid the child's arm came up into the incision, and was grasped. The uterus contracted so rapidly that a little difficulty was experienced in the delivery. The head stuck in the lower segment, and it was necessary to lengthen the incision downwards before it was extracted. In one minute and fifteen seconds after the commencement of the operation a well-developed healthy male child was delivered and handed to the assistant. He was born deeply congested with two coils of the cord around his neck, crying as he came out of the incision.

FIG. 3.

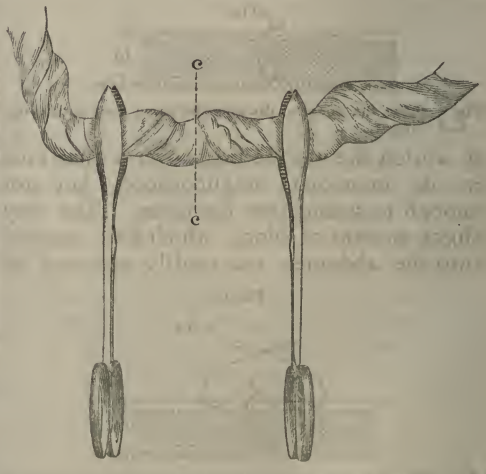


Fig. 3 shows way in which the cord was quickly clamped, without waiting to tie, and cut between at c c.

As every moment, while I was working the abdomen, was precious, to save a little time I clamped the cord between two artery forceps lying close by my hand and cut between.

Dr. Milliken afterwards tied the cord carefully. The placenta and membranes at once followed the delivery of the child, and the uterus contracted rapidly diminished the hemorrhage, which had been very free. The next step was to raise the now small uterus out of the abdomen, to protect the exposed viscera behind by layers of gauze wrung out of hot water laid across the incision, upon which the uterus rested. In order to control the circulation completely, Dr. Robb grasped the cervix uteri in his full hand and compressed it, while I rapidly introduced the deep sutures which closed the uterine wound, in order from above downwards, tying them as introduced, with the exception of the lowest. Eight deep silk sutures were passed, about four to the inch, catching the peritoneum and muscularis but not the decidua.

Fig. 4.

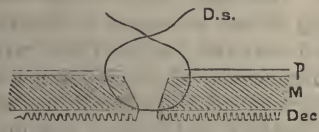


Fig. 4 shows the first deep suture (D. s.) introduced, grasping the peritoneum (p) and uterine muscle (M), but *not* the decidua (Dec.)

The deep line of sutures was then covered in by thirteen superficial, seroserous sutures. Each suture was tied tight enough

Fig. 5.

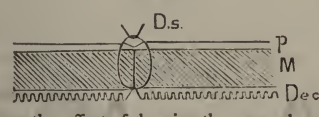


Fig. 5 shows the effect of drawing the same deep suture up, and tying it.

to whiten the uterine tissue over a small area in its immediate neighborhood, but not enough to strangulate the tissue. The very slight amount of blood which had escaped into the abdomen was readily removed by

Fig. 6.

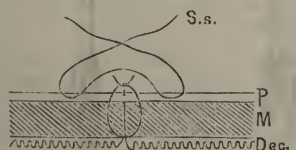
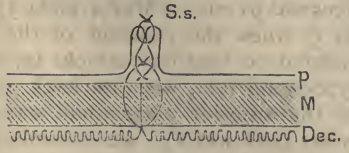


Fig. 6 shows the superficial suture (S. s.) introduced, grasping peritoneum (p) alone in such a way as to cover in the deep suture (v. Fig. 7) when pulled up and tied.

Fig. 7.



hooking up the lower angle of the incision with two fingers, and wiping out the vesico-uterine pouch, and by raising the uterus and cleansing recto-uterine pouch.

Fig. 8.

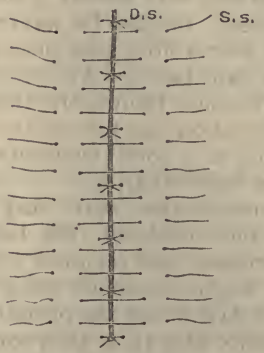


Fig. 8 gives a view of the sutures, deep tied, and superficial in place ready to tie, as one sees them looking down on to the uterus.

These series of figures show the most important part of the procedure, the closure of the uterine wound. Figs. 4, 5, 6 and 7 represent the uterus in sections across the wound, while Fig. 8 shows the long line of incision on the plane surface.

The uterus was now returned to the abdomen, where it lay among the intestines wholly without the pelvis, tilted strongly to the right, the left cornu being rotated forwards. After examining the exact relations of the tumor, the thin veil-like mesentery was drawn down over the uterus, and the abdominal wound closed, by deep and superficial sutures. Several hypodermics of brandy and ergot were given at intervals throughout the operation. Before applying the binder I examined the cervix per vaginam with the intention of dilating it, but found it patulous. After a vaginal douche of 1-2000 bichloride solution an occlusive pad of bichloride cotton was applied to the vulva, with directions to change it every four hours.

I am indebted to Drs. McKelway, Milliken and Gramm for the following valuable notes taken during the operation :

Pulse, previous to taking ether, 104, after

taking ether for eight minutes, 120, and towards the close of the operation, 140.

She was completely etherized in fifteen minutes.

The operation began at 3.42 P. M.

The peritoneum was opened at 3.42.15.

The child was handed to the assistant at 3.43.15.

The uterine suture was commenced at 3.45.

The eight deep sutures were introduced and tied by 3.51.

The thirteen superficial by 3.57.10.

Some time was devoted to a careful examination of the tumor. The suture of the abdominal wound was started at 4.00.30 and completed at 4.07.

The total amount of ether used was nine ounces.

It will thus be seen that there can be no excuse for greatly prolonging this operation, except under extraordinary circumstances.

The child was born one minute and fifteen seconds after the knife was taken in hand, and in one minute and thirty seconds the uterine wound was being closed. In nine minutes from the start, with the complete closure of the uterine wound, all chance of serious bleeding was over. In six more minutes the thirteen superficial sutures were in place, burying the deep line.

The duration of the operation, up to the point common to all abdominal operations, the closure of the abdominal incision, was fifteen minutes.

The child when born was of a livid bluish-red color, gasping as it was drawn from the wound. There was no apnœa. The pulse was 140 at birth. In two minutes it had quickened to 152. No chest measurement could be made before inspiration, after inspiration it was 30½ cm. The child was a male weighing seven pounds.

The diameters are especially interesting, as they were taken from an average living child, directly after a birth in which the head was entirely free from any moulding influence in the maternal passages.

Diameters, Biparietal, 3¼ in.
Bitemporal, 3 in.
Bimastoid, 2⅞ in.
Sub-occipito-bregmatic, 3½ in.
Occipito-frontal, 4⅛ in.
Occipito-mental, 4¾ in.

Circumferences, Occipito-frontal, 12 in.
Sub-occip.-breg., 11½ in.
Bis-accrom. diam., 4 in.
Bis-accrom. circum., 12 in.

Length of child, 16¾ in.

Length strongly flexed, 8½ in.

I am indebted to Dr. Harris for the following valuable letter handed me at this operation, showing concisely the status of the Cæsarean operation to-day for the world at large.

"May 9, 1889.

"The Sänger-Cæsarean operation has obtained its highest rate of success in Germany, where, up to January 1, 1889, it had been performed 86 times, by 40 operators, in 18 localities, with a loss of 11 women. It is an error to claim, as has often been done in society discussions, that German successes are due to the operations having been performed by a few very skilful men. The fact that these 40 men saved 34 of their first cases, is sufficient to set this assertion aside. Prof. Leopold, of Dresden, it is true, has operated upon 18 women; but it is also true, that three of them died, or one out of six, while the death-rate of the balance is 8 out of 68 or one out of 8½; the whole average being one out of $7\frac{9}{11}$. Prof. Leopold had some very unfavorable cases.

"In Austria, up to the same date, there were 29 operations under 11 operators, with 6 deaths. These six deaths occurred in the first 9 cases, prior to September 1, 1886, since which date, there have been 20 operations in order, without a death, under 9 operators, in a period (Oct. 7, 1887, to Jan. 1, 1889) of fifteen months.

"These records show the possibilities of the operation, when performed upon subjects giving a reasonable hope of success.

"There were 61 operations in all countries, in 1888, with 12 deaths. Of these, 7 deaths occurred in the United States after 12 operations, and 5 deaths in Continental Europe after 49 operations. Germany lost 3 cases out of 25, and Austria had not a death in 18 cases. Up to January 1, 1888, there were 170 operations in all the world, with 43 deaths. The record shows, that the death-rate is greatly diminishing.

"R. P. Harris."

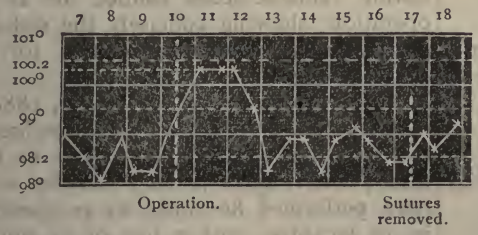
THE PATIENT AFTER THE OPERATION.

Her progress was entirely satisfactory throughout.

The pulse ranged from 120 to 108 for two days, dropping on the third day to 86, and varying after that from 78 to 90.

The temperature varied before the operation from 98–99, on the second and third days it barely crossed 100, dropping at

once, and remaining at 99 or below. The following sheet exhibits the temperature better than a detailed description:



I will describe her convalescence by a series of brief comments under capital headings:

PAIN.

She suffered but little after the operation, requiring in all but two hypodermics of an eighth of a grain of morphia on the day of operation, at 6.15 and 7.15 P. M.

NUTRIMENT.

There was no vomiting at any time. For six days she received brandy, at first every half-hour, on the day following the operation, every hour, one drachm, and after that at increased intervals. She complained much of thirst on the evening of the day of operation. For this she received teaspoonfuls of hot tea at frequent intervals. On the following morning a half ounce of tea was given at one time, followed an hour later by the same quantity of milk; an hour and a half after this, she received four ounces of milk and hot water. On the fourth day she complained of hunger. From this time the diet was gradually enlarged to full soft diet.

BOWELS.

On the day following the operation she had a spontaneous free movement of the bowels, followed three days later by a very large movement filling a bed-pan. I observed this peculiarity in my first case, and wish to call especial attention to it. It is exceedingly probable that almost all similar cases suffer from coprostasis towards the end of pregnancy, the natural consequence of the constant pressure of the ball-like head of the child in the first position, unable to engage, acting as a cut-off to the loaded sigmoid flexure at the superior strait. It is important to bear this fact in mind inasmuch as a loaded rectum may clog all the other emunctories at a time when it is of the utmost importance that they should be active in ridding the system of the unusual amount of débris. I would, therefore, in all cases, in the absence of positive evidence to the fact that the bowels had been thoroughly emptied before operation, either by enemata or by mouth, insure a free evacuation by the second, or at the latest by the third day.

URINE.

The urine was drawn by the catheter every six hours for nine days. After the fourth day she voided it at times naturally.

SLEEP.

Sleep was fitful, being at times long and refreshing, at others in naps and snatches.

LOCHIA.

The lochia bright and free at first, had by the seventh day dwindled down to a scanty discharge. No active efforts were made to disinfect the vaginal canal after the operation. Sepsis was prevented from invading the canal by the pad of sterilized absorbent cotton renewed every four hours, and at each renewal, and whenever the nurse catherized she separated the labia, wiped the parts dry, and threw a drachm of a powder of iodoform and boracic acid [1–7] into the vaginal orifice.

DRESSINGS.

The abdominal incision was thickly sprinkled with the same powder, and simply covered by absorbent cotton, held in place by a binder. This was changed several times during the first few days, whenever the cotton became wet.

SUTURES.

On the seventh day all of the sutures (8 deep and 9 superficially) were removed. The line of union was perfect throughout, measuring 11 cm. in length.

BABY.

The baby was put to the breast twice on the day of the operation, and at intervals on the day following. After this it received in addition to the breast-milk, some prepared food. He has maintained perfect health and flourished from the first. The mother's breasts were washed from the time she entered the hospital and before and after every feeding, with a solution of boracic acid and water.

RISING FROM BED.

A week after the stitches were removed, that is, two weeks after the operation, she got out of bed, where I deemed it unwise to detain her as she was becoming very nervous at the unusual inactivity, while feeling so well.

On the nineteenth day she went home, a distance of about two hundred miles.

CONCLUSION.

I have thus dwelt upon a number of details, distinctly minor in character, as I have hoped to produce a strong impression as to the perfectly simple character of her puerperium. It is my hope that the day is not far distant when all suitable cases will be promptly recognized by the attending physician, who is familiar with the advantages of the Sänger-Cæsarean operation, and will bring them to the surgeon before the many futile attempts have been made to deliver *per vaginam* by which the patient has lost her last chances, and the Cæsarean section, however well performed, has been made little more than a farce.

I have spoken also at some length of an *operation.* Had this been the proper place I would have gladly dwelt upon the one fact which gave zest to the work, and made the burden of anxiety, and the hourly cares by day and by night a pleasure, the heroism of the mother, who hid her fears beforehand, and the maternal love which was at last abundantly gratified after so many fruitless labors.

As far as tender care and watchful interest were able to contribute to the successful issue in this case, the credit has been due in no small degree to my able assistant, Dr. Hunter Robb.

TEMPERATURE OF THE MOON'S SURFACE.—Professor S. P. Langley has been making some investigations upon the temperature of the moon's surface. Contrary to the usually received opinion, that the surface of the moon exposed to the rays of the sun through the long lunar day becomes heated to a very high temperature, Professor Langley comes to the conclusion that the mean temperature of the sunlit lunar soil is much lower than has been supposed, and is most probably not greatly above 32° Fahr.

CREMATION.

WHAT IS THOUGHT OF IT BY PHYSICIANS.

INTERVIEWS WITH PHYSICIANS BY A REPRESENTATIVE OF THE MEDICAL AND SURGICAL REPORTER.

SIXTH SERIES.—BOSTON.

DR. HENRY I. BOWDITCH said: Years ago, being satisfied that cremation was the wisest method of disposing of all dead animal matter, which might be liable, unless destroyed, to promote disease, I made a motion at the meeting of the proprietors of Mt. Auburn Cemetery that a crematorium should be erected in the grounds of that burial place; or, if they were not disposed immediately to erect one, I wanted a committee appointed to report at a subsequent meeting on the advisability of such a proceeding. No one, however, sustained me. Any thought of the subject seemed repugnant to the meeting. Apparently all preferred that their friends and themselves when dead should be slowly destroyed by "maggots," and with the possibility of contaminating other living human beings, rather than by the quicker operation of fire to prevent the occurrence of either of these contingencies. It seems to me that all modern sanitary science points to cremation as the only safe way of disposing of the dead; and I feel confident that eventually it will be adopted everywhere. The burial grounds for families might remain as now, but the ashes (after fire has destroyed the noxious qualities) alone will be buried there, or they may be put in places thought more appropriate.

DR. DAVID W. CHEEVER said, Yes, I favor cremation.

DR. HERMAN F. VICKERY, being seen, said: I regard cremation as the best mode of disposing of our dead on two grounds: First, of health, and second, of economy. Fire destroys all germs of disease. It precludes infection, whether by the air or through the medium of poisoned drinking water. In regard to the second point, when cremation is fairly established, the expenses of funerals must be much less than at present; and, above all, large tracts of land would be preserved for the benefit of the living, which would otherwise remain as melancholy memorials of the dead. It should be added that for medico-legal reasons, rigorous laws

should be framed and careful supervision exercised, lest the evidences of crime should be destroyed along with its victim.

Dr. Henry O. Marcy said: I am not prepared to run counter to the prejudices of centuries by advancing cremation. Theoretically, it is correct, true science. Hermetically sealed coffins, however, will give safe funerals, so far as the body inclosed is concerned; while antiseptics can be inclosed in the caskets in quantities sufficient to destroy disease germs. These measures the public will accept at once for general adoption; but cremation will meet with serious and stubborn opposition. In this way preparation might be made for the introduction of more radical measures.

Dr. Frederick C. Shattuck told our representative that he approved of the practice of cremation and that he should be glad to see it more generally introduced, perhaps even to have it become the universal custom. Several years ago he joined a Cremation Society but "it apparently was an untimely child and never saw the light." From the point of decency as well as of sanitary science cremation has much to recommend it. The only objection which offered itself was, the opportunity which it might afford to destroy the evidences of crime. On the other hand, its cheapness is strongly in its favor, though he supposes that the very classes,—the poorer and less educated—for whom economy is most important, would be the very last to adopt it.

Dr. Francis Minot, on being interviewed, said: I believe that cremation is the only safe and desirable method of disposing of the dead known at the present time.

Dr. E. G. Cutler replied that the desirability of cremation in most cases seems to him unquestionable. Whether our laws about death certificates would have to be materially altered and the medical examiner's function extended, would be another question. Some additional safeguard would be needed to keep the evidences of crime from being totally destroyed. In the main, without any great thought on the matter, he approved of it.

Dr. Elizabeth C. Keller said: The subject of cremation of the body is one which is rather revolting to me, hence I have not given it much thought. I should be ashamed to oppose it, for I think it may be the best way. I cannot advance it because I am sure I do not want to be thus disposed of.

Dr. James R. Chadwick said that he was unqualifiedly in favor of cremation as the best process yet proposed for the disposal of the bodies after death. The subject admits of discussion from a utilitarian and a sentimental standpoint. On the ground of utility, a medical audience hardly needs to have presented to it the arguments in favor of the rapid and harmless disintegration of the body into its constituent elements. Second, by cremation, as contrasted with identically the same mode reached by the present custom of burial, by which Nature's process of slow combustion is indefinitely prolonged by man's interference. The instances of the deterioration of health of large communities and the deaths of many individuals are too numerous and too well established, as resulting from burial of the dead, to need recapitulation. Granting this much, we only need to consider whether cremation is a means of attaining the same end without its attendant risks to the living. Personal observations of the crematory established by the Crematory Society of England, at Woking, near London, warrants me in asserting that this purpose has been fully achieved. The process is there accomplished in from two to four hours, the gaseous elements escaping into the atmosphere and the universal elements, weighing three to four pounds, remaining in the crucible. The whole charge is but £6 ($30). The only new danger that can possibly arise from burning the remains is that cases of poisoning might thereby escape detection. This objection seems to be met by the requirement that a perfectly satisfactory certificate must be signed by the medical attendant and by another physician, who has personally investigated the circumstances of the death, before the permit for cremation is issued by the Society. The objection to cremation on the ground of sentiment is natural, deeply-rooted, and hence hard to overcome. The religious scruples should not be a barrier when it becomes fully known that there is nothing in the Christian Scriptures either enjoining burial or forbidding cremation, and the preference for the former custom among the early Christians is easily intelligible on grounds quite independent of and apart from religious conviction.

Dr. Albert N. Blodgett said: In replying to your courteous request for my views upon the subject of cremation, I would

state that I am in favor of this method of disposition of the bodies of the dead, for the following reasons: First, the processes of natural dissolution in the earth are but a slower form of decomposition than that which is effected by cremation, and except in respect to time, the processes do not materially differ. Second, the aggregation of large numbers of the dead in cemeteries is a more or less serious menace to the health of those persons who reside in the immediate vicinity; and in the neighborhood of large cities this may at any time become manifest. Third, there is nothing repulsive in the idea of cremation, in relation to the slow process of decomposition which the body must undergo if placed in the ground in the ordinary manner. Fourth, the possibility of infection from the bodies of the dead, particularly in the periods of epidemic ravages, is excluded, as the virus or germ of communicable disease is effectually destroyed by the process of cremation. Fifth, the expense attending the cremation of the body is materially less than that resulting from the ordinary methods of burial, and may be made to correspond in a great measure to the means of the family or friends of the deceased. The question which is most frequently raised in relation to cremation is one of sentiment, and concerns the feelings and emotions of surviving friends rather than the demands of necessity in relation to the dead. From this point of view, there can be no doubt that there is a growing conviction that cremation is not only not inhuman nor unkind nor heathen in its nature, but that in this way the processes of lingering natural dissolution are only kindly hastened. The feeling that cremation is in any way an evidence of disrespect or irreverence to the departed is now well nigh obsolete, and the community at large is no longer shocked by the idea. In favor of cremation it may be added that there is nothing of the gruesomeness attending the disposition of the remains of a loved one in the earth, where any association with the place must be combined with the thought of corruption, of human decay, and of the sickening processes which are there taking place. From a pecuniary point of view, cremation has much in its favor, for while the cost of ordinary burial is continually increasing both in regard to the spot chosen for interment, as well as in the expense attendant upon the funeral services and customs, the cost incurred by cremation is not large, and the demands upon the resources of the often already impoverished family are not so great, and may indeed be made quite small. In one of the crematories visited by the writer, there is no exhibition of iron coffin or other fireproof material; the body is brought to the chapel in a portable casket, and is placed upon an ordinary catafalque, which at the proper time is silently drawn to one side, and the body is slowly propelled into a vaulted chamber, where the process of cremation is carried out by means of reverberatory heat without the contact of the direct flame. The process is complete in about two hours. There is another point of view from which cremation should be regarded with more consideration than has usually been accorded to it, and that is, as a means of protection from living inhumation. In many instances it is on record that the bodies of persons supposed to be dead have afterward been found in such a condition that the horrible fact was established that the bodies had been placed in the ground before life was extinct, and that the persons had revived after burial, and had suffered untold agonies before death finally came to their relief. This consideration alone should have some weight with those who have opposed the idea of cremation, as it alone of all forms of disposition of the dead, offers absolute immunity from this most appalling accident. An autopsy should in all cases precede cremation, and in this way the public has a double protection against possible living burial, in the added care which their repeated examination would secure. No official would make a *post-mortem* examination in any case without first satisfying himself that all possibility of life in the subject was excluded, and if by any chance the person should not be dead, efforts at resuscitation might still be successfully instituted.

The Nicaragua Canal.—Test borings recently made on the line of the Nicaragua Canal show that the entire divide to be traversed by the deep cut consists of solid basalt, at least to a depth of 165 feet, as far as the borings extended. This is a most favorable showing for the construction company, as it settles at once the important question of slopes in the greater part of the cut.—*Science*, Jan. 17, 1890.

THE USE OF THE DIGESTIVE FERMENTS.

BY H. H. RUSBY, M. D.,

NEWARK, N. J.

The progress of medicine during the past decade has been in the direction of profound investigation and brilliant discoveries in pure science, rather than in that of assisting us in our practical treatment of disease. It is true that extensive improvements have taken place in bedside treatment; but this has been rather due to the increased dissemination of past information by means of the Medical Press, and a closer association of physicians in societies like our own, than to the application of discoveries really new. The most careful study of the subject of bacteriology, for instance, fails to discover, as yet, practical benefits at all commensurate with the amount of study that has been bestowed upon it. We have been induced by it to become more cleanly, and that is about all. So with much of the theoretical work that has been done. Representing the highest talent, the most devoted effort and the most admirable results, it has yet fallen short of its practical object, except, as I have remarked, in elevating our own individual standards of study and care.

Among the exceptions to this general rule none stand out more prominently than the artificial digestive ferments. A quarter of a century or so ago, pepsin and pancreatin were little more than pharmaceutical curiosities, the use of which, when they were used, was not based on sound information and rational principles, and resulted in little advantage to the public. Indeed, the products themselves, at that time, were not such as to command confidence, or effect any special result. Imperfectly freed from their associated organic matters, they were ill-smelling and nauseous, and of very feeble digestive power. To-day all this is changed. Comparative perfection has been reached in the products themselves. We have an infinity of beautiful and elegant preparations, and effective combinations, both solid and liquid, in powder and scale, and representing a uniform digestive power ranging from 500 to 2000, exceptional samples having been produced with a digestive power of 3500. That is to say, one grain of the pepsin is capable of digesting 3500 grains of coagulated egg albumin. Great as has been the advance in the character of the preparations, the advance in their intelligent use has fully kept pace therewith. Their consumption has become simply enormous. And yet even now there are many physicians who dispense with their use altogether, while by many others they are used merely because it is the fashion. If asked for a candid opinion, these physicians will admit that they have been disappointed in the results obtained. I have no hesitation in saying that in all such cases the fault lies, in one way or another, with the physician himself. Properly used, the action of the digestive ferments possesses all the certainty and exactitude of a chemical combination.

Failure in their use may be attributed to three sources of error. First, to the selection of an improper preparation; second, to an unscientific combination; third, to a method of application not in conformity with the principles upon which they act.

My object this evening is not to point you to those preparations which I believe to be the best, but to discuss the nature and action of the substances, and to deduce therefrom the means by which you can readily inform yourselves as to the comparative value of any preparation which may be offered. I need only refer to the character and functions of these substances as they occur naturally in the human system.

You are all of you familiar with the fact that ptyalin, the digestive element of the saliva, possesses the power of converting starch into sugar. As to the relative importance of its action, authorities differ greatly. It is urged on the one hand that as it requires an alkaline condition for the performance of its work, and as its action ceases within 15 minutes of its entrance into the stomach, its function is unimportant. On the other hand, it is argued that its operation is almost instantaneous, and that 15 minutes is sufficient time for it to accomplish important results. However, it does not form one of the artificial digestive ferments, so we may dismiss it from consideration. The digestive constituent of the gastric juice is pepsin. This pepsin is aided in its action by the acid associated with it. Such assistance is rendered in two ways: in the first place the acid possesses in itself the power of softening the albuminous substances, and preparing them for the action of the pepsin.

Second, the acid condition produced by its presence is an indispensable necessity for the action of the pepsin itself. Too much

stress cannot be laid on this fact. If you render the condition of the stomach and its contents alkaline, you effectually prevent every possibility of digestive action by the gastric juice. Not only so; if the mass be neutral in reaction, or even if it be only feebly acid to test paper, the process of digestion is checked. A certain quantity of free acid must be present. As to what the acid is, opinion differs. It has long been supposed to be identical with hydrochloric acid. The fact, however, is not important, inasmuch as there are a number of the acids which work almost equally well. The action of pepsin is upon the albuminous substances exclusively, converting them into peptones. It also possesses the power of coagulating milk, but there its action ceases absolutely. The actual digestion of the milk is left for the intestinal processes.

The chief digestive principles of the pancreatic juice are pancreatin and trypsin. The functions of these two principles are very distinct. That of pancreatin is to digest the starches, converting them into sugar, and to form an emulsion—the most perfect known to science—with the fats. That of the trypsin is to complete the work begun by the pepsin in the stomach, namely, the digestion of the albuminous substances. It is obviously impossible to take up these physiological processes in the present paper. It is sufficient to say that throughout them, an exactly opposite condition must be maintained to that necessary for stomach digestion. Their most perfect performance calls for an alkaline or neutral condition. Such a condition, however, is not always clearly present. An acid reaction is often exhibited by the mass, when in reality no free acid is present, a loose combination existing. In such instances the pancreatic digestion proceeds unimpaired.

The application of trypsin in its pure form to intestinal digestion has not gone beyond the experimental stage. In discussing this process, therefore, I shall confine myself to the action of pancreatin.

Taking up first the subject of pepsin we may establish certain requirements as to the character of the preparation.

First, it must have no bad odor. This rule is based on obvious principles. Pepsin possesses a distinct and peculiar odor of its own. Any odor which is added to this must be due to the presence of foreign matter. Such matter must weaken the efficacy of the pepsin in exact proportion to the extent to which it is present. But there is a far more serious evil than a mere want of efficacy. Such a preparation is positively injurious, if not dangerous. The adjective "pure" as applied to pepsin possesses an entirely different construction from what it does as applied to an ordinary chemical substance. Absolutely pure pepsin has never yet been produced; it is impossible by any process now known to free it perfectly from its associated matters. The term is therefore used only in a relative sense. It means that it has been purified so far as the process is possible, and that no adulterating or modifying substance, such as milk sugar, has been added to it. There must therefore be more or less foreign matters connected with the very best of pepsins; but if such foreign matter be in excess, or if it represent animal substances liable to decomposition, then we get a real danger of sepsis. That such a danger is not imaginary is proven by the accounts which reach us from time to time of fatal blood poisoning resulting from the absorption of septic matter contained in the pepsin, through the agency of raw or ulcerated surfaces in the digestive tract. The presence of such septic matter is best indicated by the possession of a putrescent odor.

Second, the pepsin must be stable in its composition. There are pepsins which, possessing a high degree of digestive power when recently prepared, rapidly deteriorate, until within a year from the time of their preparation, they have scarcely any digestive power.

Third, pepsin to be used with the greatest amount of benefit, should be as nearly pure as it is possible to obtain it. The plan of producing lactated and saccharated pepsins and the like has no advantage except that where we desire to give a small dose, we can more readily estimate it by dividing a powder whose bulk has been increased by such additions. But the corresponding disadvantages more than offset this slight advantage. From an economical standpoint, moreover, it is decidedly to the disadvantage of the patient to purchase these preparations.

Fourth, and perhaps most important, the pepsin must contain no peptone; to mix a peptone with a pepsin, or to use a pepsin which has not been freed from any peptone which might accidentally have become incorporated with it, is precisely as economical as it would be to mix a certain amount of coal ashes and clinkers with the coal you desire

to burn in your furnace. It is the office of pepsin to act upon albuminous substances in such a manner as to convert them into soluble peptones; this is the very process of digestion. If, now, a peptone is present, you have not a substance capable of doing this work, but, on the contrary, you have the product of such work already performed, and to just the extent to which such peptones are present your product is ineffective. There is, however, this difference between the case of the ashes in the coal and that of peptone in your pepsin. The former is not at all dangerous to the safety of the occupants of the house, but to your patient, the presence of these peptones, particularly after they have been allowed to go on to a state of decomposition, possesses all the danger to the patient which a good surgeon attempts to avoid by the employment of antiseptic precautions.

Finally, I may say that it is a mistake to believe that a pepsin does any better work because of its being freely soluble. It is more convenient to use, but the stomach will make an equally good use of it, even if it be insoluble in water. It is to be remembered, however, that in this case the presence of mucus is indicated, so that the pepsin is less pure and therefore less active.

How, now, are we to decide as to the value of the host of pepsins upon the market? All of them may, for convenience of discussion, be comprised under three heads. First, those which are copyrighted, patented or otherwise protected, or which are made by houses which resort to these methods. Of such preparations and of such manufacturers, it is safe to say, that they are the most deadly foes with which the honorable and conscientious physician has to contend. Every man who is concerned in the preparation of a proprietary medicine is seeking to rob every one of you of your rightful living, and your treatment of him should be adopted in accordance with these ideas. Yet it is the rarest thing in the world to meet with a physician who is not assisting one or another of the sharks, to his own destruction and that of his fellow-practitioners.

Secondly, one-half of all the digestive agents advertised to-day, perhaps I would say two-thirds, are wholly inert or so nearly so as to be practically worthless. It matters not what testimonials are brought forward in favor of such preparations. For example, I may cite the case of the company preparing Lactopeptine. This company, with a capital investment at no time exceeding $30,000, divides an annual cash profit of more than $200,000, and issues two dividends monthly. A very great part of this large sum is obtained at the expense of the practitioner; for, in spite of all denials, these preparations are purchased very largely by the laity. But it is even a greater injustice to the public, as its digestive power is scarcely perceptible by means of any scientific tests which can be applied to it. Lactopeptine, ingluvin, peptonyx, and digestyline, so far as science is able to determine, possess no digestive power. Their authors seek to promulgate the idea that it is possible that digestion does not proceed the same within the body as it does in experiments conducted outside of it. But this is a perversion of facts. Such a statement can refer only to temporary and accidental states or conditions. As a rule, human digestion proceeds strictly in the line of artificial digestion under careful scientific management.

Of the remaining one-third or one-half of the digestive agents which are offered to us, it becomes important that we should select the purest and best; how shall we accomplish it?

First, the presence of putrefaction may be easily detected by leaving the sample exposed for some time to the atmosphere, and then testing it by the mere sense of smell.

Second, the presence of peptones may be detected in a moment or two by a very simple test. All pepsins contain a trace of peptones, but it should be very slight indeed.

Third, an accurate decision as to the most active preparation is only to be rendered at the expense of a little time and care. If there be any duty on the part of a physician the proper performance of which will be richly rewarded, both in the interests of his patient and in their increased confidence in him as their medical adviser, it is the devotion of a few hours to the settlement once and for all of this important question. If, however, it be, or seem to be, impossible for him to find the time necessary for the performance of this test, then let him by no means fail to reinforce any claims that may be presented, with the decision of some eminent and fully qualified authority. To us, as physicians, it may seem strange that any man moving in respectable society should deliberately make a statement to the effect that "recent tests have clearly established

the superiority of his preparation over all others" when he is at the moment fully conscious that it is only ⅛ or ⅙ as strong as those of half a dozen other makers. Yet this thing is done daily by manufacturers. As I stated in the beginning of my paper, it is not my intention to refer favorably or unfavorably, this evening, to a single product specifically; but I do assure you that some of the most inert products to which I refer are brought forward with the most unblushing claims as to their great superiority. It is, therefore, folly to trust in any advertised statements whatever, unless they be backed by some authority upon whose ability and integrity you can fully rely.

The test, then, which I would recommend as the only really practical one at your command, is as follows: The strongest preparation of pepsin which it has been found practicable to prepare by modern pharmaceutical processes, and for commercial purposes, is one, one grain of which is capable of digesting two thousand grains of coagulated egg albumin. This then may be taken as a standard, and we may proceed with our test based upon this ratio. In a bottle containing 11 ounces of water, acidulated with 50 drops of hydrochloric acid, place 500 grains of coagulated egg albumin, prepared in the following manner: A pin-hole is to be made in each end of the eggs, which are to be boiled for 15 minutes. The shell is then removed, and the white carefully separated from the yolk, any adherent portions of the latter being removed by washing with cold water. With a soft towel the pieces are then carefully dried, after which they are passed through a sieve containing 30 meshes to the linear inch. The required amount is then weighed and placed in the bottle together with ¼ of a grain of the pepsin to be tested. One-fourth of a grain of pepsin to 500 grains of albumin gives us a ratio of one to two thousand. The substance is then carefully kept at a temperature of 104° F. for 4 hours. The amount of undigested albumin remaining at the end of this time is an indication of the comparative inability of the pepsin to answer the required test.

Similarly, we may establish the strength of any preparation of pancreatin by testing its power to digest starch. A given amount of pure starch is to be hydrated and mixed with a weighed quantity of pancreatin. The pancreatin may be either in a liquid or dry form. In either case, upon mixing it, the mass is instantly liquefied and a clear solution results. After a short time sugar begins to form and can be discovered by the ordinary tests.

Having now selected our preparation I would add a caution or two in reference to the mode of prescribing it. The physician who combines carbonate of soda, potash and similar alkaline substances with his pepsin, pursues just as irrational a course as would your servant girl in soaking her kindling wood with water before attempting to build the fire with it. In other words, he adopts the most effectual process known for preventing digestive action. And it is not to be forgotten that this alkali once added, the power of the pepsin is gone forever. No subsequent addition of an acid can restore it. It is perfectly proper to administer an alkali some little time before eating, as it tends to promote the flow of the gastric juice. But to combine such a substance with the digestive agent, and at a time when digestion is in progress, is the greatest error which could possibly be made. Similarly, it has been found that more or less injury to the digestive process is caused by the presence of corrosive sublimate, quinine, tincture of the chloride of iron and saccharine. No harm is produced by the addition of willow charcoal, sub-nitrate of bismuth, or the ammonia-citrate of bismuth. The ordinary drugs have nearly all been tested as to their effect upon the action of pepsin, but I must refer you to treatises upon this subject. It is the general opinion that pepsin is best administered within half an hour after eating.

The use of pepsin is indicated only by an inability on the part of the stomach to digest albuminous substances. To exhibit pepsin for the purpose of aiding in the digestion of starches and fats is to fail in appreciating its office. Its amount likewise must be proportioned to the amount of albuminous substances which have been digested, and to the comparative ability or disability of that particular stomach to do its work. There is therefore no dose designated; an intelligent application of the dose to each individual case becomes one of the niceties of medical practice. It is not to be supposed from this that a given amount of pepsin actually unites with the given amount of albuminous material to form the peptone. As a matter of fact, the pepsin is not used up in the process. It acts by its presence alone; and after it has digested

one lot of food, if it still remain in the stomach, an additional portion might be digested simply by supplying the necessary amount of hydrochloric acid, this substance having been consumed in the previous digestive act. Any excess of pepsin is quickly destroyed after leaving the stomach by the alkaline juices which it encounters.

The conditions for the administration of pancreatin are readily deduced from a consideration of its nature and functions. It is to be given chiefly for the purpose of aiding in the digestion of fats and starches. While it does not, strictly speaking, digest the fats, it produces with them so fine an emulsion as to greatly aid in the further intricate processes to which they are subjected. Its action upon the starches, converting them into sugar, is perfectly simple.

Finally, its power to digest milk is scarcely less important than is its action upon the starches. While the gastric juice possesses the power of curdling the milk immediately upon its entrance into the stomach, no further action is thereby exerted upon it. It passes on into the intestine, becomes alkalinized through the action of the bile, and in this condition is prepared to be acted upon by the pancreatin.[1]

Should it, however, pass the stomach without becoming curdled, the pancreatic juice also possesses the power to accomplish this result. In this condition, it is readily and promptly digested by the pancreatin present. One of the indications, therefore, is that pancreatin should never be prescribed with an acid; but on the contrary it is even necessary to add a certain amount of alkali in order to insure its passage through the stomach without becoming destroyed by the gastric juice which may be there present. Various devices, some of them quite ingenious, have been proposed in order to accomplish this result, but none of them have been perfectly successful. It may be partially accomplished by administering pancreatin with an alkali some time before the digestion of a meal. A much better plan is to omit its administration until stomach digestion is pretty well concluded, and the stomach has temporarily lost its power to secrete the acid gastric juice. The exhibition of pancreatin is attended with almost insurmountable difficulties, so that it may be doubted if its use is at all practicable in the present state of our knowledge, and by any at present known processes. As I have said, the acid of the stomach, unless counteracted, instantly and permanently destroys its power. On the other hand, any but a very small amount of alkali also checks its action, and a large amount destroys it almost as effectually as does a free acid. Thus we stand, as it were, between Scylla and Charybdis, and know not which way to steer.

A third method, and by far the most advisable, except that it is apt to render the food somewhat unpalatable, is by digesting it before it is taken into the stomach. This method is especially applicable to milk. The most sensitive stomach, unable under natural conditions to use this important article of food, will assimilate it in the most perfect manner, if it be first mixed in the proportion of ½ pint, with 15 grains of bicarbonate of soda, and 5 grains of pancreatin, and allowed to stand at the body temperature until a slightly bitter taste has been developed. The process must then be immediately checked by immersing the vessel containing it in cold water, and the food taken within a few hours. If the bitter taste is found very objectionable, it may be masked by properly flavoring.

I feel that this paper would be far from complete without some special reference to the effect of these digestive agents in dissolving the false membranes of diphtheria and membranous croup, if, indeed, which is more than doubtful, these diseases are distinct. Their use for this purpose seems so rational and scientific that we may well wonder that it did not become altogether general many years ago. The explanation is to be found in the imperfect nature of the preparations until within a few years. Even the best of them was not uniform in strength, varying greatly with the different lots prepared, as well as with their age. Had we possessed 100 years ago, the powerful, uniform, and stable preparations of pepsin with which we are blessed to-day, their application to these deadly diseases might have resulted in the saving of hundreds of thousands of human lives.

The mode of application in these cases should be just as rigidly subjected to scientific surveillance as for the purpose of digestion. I cannot do better than to quote

[1] I find that this is understood as saying that pepsin has not the power to digest the caseine of milk. It has such a power, but it does not get an opportunity to exert it beyond the curdling process, as the milk quickly passes out of the stomach, and under the influence of the pancreatic juice. Practically, therefore, he digestion of milk takes place in the intestine.
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from a valuable paper on this subject by Dr. A. J. C. Saunier, *Western Med. Reporter* for Oct., 1888. Three substances have been used for digesting the false membranes of these diseases. They are papayotin, trypsin, and pepsin. I heartily confirm the Doctor's opinion that the first of these, papayotin, possesses but little value. While in a natural condition the juice of the paw-paw possesses a remarkable digestive power; no preparations thereof have been found which retain this power to a reasonable degree.

Trypsin possesses a fair degree of power, but its use is somewhat impracticable for the reason that, being an ingredient of the pancreatic juice, it requires an alkaline condition for the performance of its work. Such an alkaline condition is very difficult to maintain upon the highly acid surface of the diphtheritic exudation.

Such a condition can be produced by frequent spraying; but this is found exceedingly annoying to the patient. The employment of pepsin, therefore, is on all accounts to be preferred. For this purpose the strongest possible form of pepsin should be employed, and it is here highly important that it should be freely soluble. A saturated solution being prepared, it may be applied either in the form of a spray or by means of a sponge. It should be used freely every one, two, and three hours, according to the case, the dissolution of the membrane requiring only from 15 minutes to half an hour.

I feel that I cannot close this subject without communicating to you some recent discoveries as to the nature and action of diphtheria, with which some of you may not yet have become acquainted, and which seem, to my mind, to be well established. It has been found that diphtheria acts in two ways in the production of its fatal results. The bacillus under no circumstances permeates the system. Its development and location are purely local, upon the surface of mucous membranes. These produce their effects by mechanical means. Here they generate, by the breaking up of the albuminous matters with which they come into contact, the deadly ptomaine which become absorbed in the system, and effects its work by means of poisoning. That death, then, can be caused through the absorption of sufficient amount of the poison generated, without any reference to the amount of membranous derangement present, might be inferred. But inference is not called for. The fact has been clearly demonstrated. A solution in which the bacteria had been allowed to develop freely, having been filtered through unglazed porcelain, so that all bacteria were removed from it, was then introduced into the system of a healthy subject. As a result the characteristic symptoms of diphtheria very shortly presented themselves, ran their course, and produced paralysis and death, yet without the production of one single individual of the bacillus of the disease.

CLINICAL OBSERVATIONS OF THE PRESENT EPIDEMIC.

BY CARL SEILER, M. D.,

PHYSICIAN-IN-CHIEF OF THE UNION DISPENSARY; INSTRUCTOR IN LARYNGOLOGY AND LECTURER ON DISEASES OF THE UPPER AIR-PASSAGES IN THE UNIVERSITY OF PENNSYLVANIA; CHIEF OF THE THROAT DISPENSARY AT THE UNIVERSITY HOSPITAL, ETC.

The present epidemic seems to be a combination of the ordinary "cold," which is no doubt aggravated by the unfavorable atmospheric conditions, and the so-called influenza, but it is not the disease which we are accustomed to designate as influenza, possessing, as it does, many symptoms and characteristics entirely different from those found in that disease, and requiring a decided change in the treatment usually followed in such cases. It is not such a new disease as is commonly supposed, for I have recognized and treated cases in this city and surrounding country during the last four years. It has not been confined to this city or its surroundings alone, but has existed in different sections of this country for that length of time. Now that the cases are so numerous, attention has been drawn to it, and its infectious character realized; but, in the majority of cases it has not been differentiated from influenza, recognized under its varied manifestations, nor has it been properly treated. Last year, I read a paper on this same disease before the American Medical Association at Newport, which was afterwards published in the MEDICAL AND SURGICAL REPORTER, Aug. 3, 1889. Dr. W. C. Glasgow of St. Louis had made, at that time, similar observations, and had read an exhaustive paper on the subject before the American Laryngological Association at its last meeting in Washington. Since writing

the above-mentioned paper, I have observed many cases representing different types of the same disease, possessing the diagnostic symptoms, and being amenable to the same specific treatment. I do not believe that the disease is identical with that called "La Grippe," which is now epidemic in Europe.

In one city or town a certain type of the disease may predominate, in one section of the same city or town one set of cases, representing one type, may be found, and in another section, a different one. For a disease which has not yet been named, it is not to be expected that we can state its etiology. Further observations are necessary before the cause can be determined. It is certainly infectious, but not contagious. One attack does not secure immunity from a second or third seizure. In fact, the disease is prone to recur a second, or even a third time, either before health is completely restored or subsequently.

The attack begins without a chill. Often there are chilly sensations, but I have not seen a case in which there has been a chill. Headache is constant and usually severe. In that type of the disease in which the upper respiratory tract is affected, the headache is usually frontal and orbital. In the other types of the disease the pain in the head is frequently not localized. The temperature is elevated from the first, and generally high, sometimes reaching 104° or 105°. A characteristic feature is that the temperature is highest at midnight, and lowest in the morning and evening. Frequently when this nocturnal temperature descends, the patient, in the early hours of the morning, finds himself in a profuse perspiration. The relation of the pulse to the temperature is peculiar. Even with a temperature of 104° to 105°, the pulse is not over 100, and, in most cases, the rapidity is normal. The character of the pulse varies, being sometimes full and bounding, especially when the temperature is at the highest point, and, at other times, it is weak and compressible, but in the majority of cases, its character, like its rapidity, is nearly normal. The tongue is moist, and has a light, yellowish-white coat, the tip and edges are clear. When not coated, the tongue is soft and flabby, and its sides show indentation of the teeth. The patient does not complain of thirst. There is anorexia, in most cases aversion to food, although there may be hunger. The feeling of malaise, the general depression, and weakness are out of proportion to the gravity of the general symptoms. The patient loudly complains of the severe pain in the back. Muscular soreness and pains in the joints are common symptoms.

There are three types in which the disease manifests itself; first, when the mucous membrane of the upper respiratory tract is affected; second, when the disease attacks the mucous membrane of the lower respiratory tract; third, when there is entire absence of any symptoms pointing to the air-passages, and we find merely abdominal symptoms, simulating typhoid fever. If the disease is located in the upper air-passages, there is congestion of the mucous membrane of the nasal and naso-pharyngeal cavities, increased secretion, and partial occlusion of the nasal cavities. Conjunctivitis and increased lachrymation. Persistent sneezing and redness of the eyes, which is so characteristic of influenza, are not so common as they were in those epidemics called "Epizootie" and "Pink-Eye," occurring a few years ago. Occasionally there is ear-ache, from extension of the inflammation to the Eustachian tubes and to the middle ear. In some cases, although the nasal and conjunctival congestion may be absent, there is hyperemia of the retina. Enlargement of the submaxillary and parotid glands is common. There may be an absence of symptoms referring to the nose and eye, and in the pharynx there will be found a mucoid infiltration of the sub-mucous tissue, and the formation of thin, white, pseudo-membranous patches on the surface of the mucous membrane. These pseudo-membranes gradually melt away without there being the characteristic odor of diphtheria. There is no albumin in the urine.

When the disease is localized in the lower respiratory tract, there is hoarseness, pains in the chest, and a dry, rasping cough. Physical examination reveals only an occasional sibilant râle. In old persons, in the debilitated, and in feeble children, pneumonia and capillary bronchitis may exist as complications.

In the third type of the disease there may be a complete absence of symptoms involving the respiratory tract, and the disease may simulate typhoid fever. I saw about fifty cases of this kind, occurring in the practice of another physician, in a town near this city. There was considerable alarm, as the disease had been called typhoid

fever, and it was feared that there was an epidemic of that disease. On investigation I found that it was not typhoid, but the disease under discussion, and that when the proper treatment was instituted, the patients recovered in a few days, whereas, under the treatment which they had been having, the disease continued two or three weeks. Those who were found coming down with the disease, and who were placed immediately under proper treatment, recovered in 48 hours.

The remedies usually prescribed have either no effect upon the disease, or seem to increase the severity of the symptoms. Quinine should not be given. The disease is not malaria, and quinine has no influence on the temperature in these cases. I have found no benefit from antipyrin or antipyretics of that class. Dr. Bartholow, in the *Medical News* of Dec. 28, 1889, recommends the inhalation of sulphurous acid fumes, by the burning of sulphur in the patient's apartment. The inhalation of this gas, even when the mucous membrane of the upper air-passages is in a normal condition, as every one knows, is extremely irritating, how much more so must it be when congestion exists. It should, therefore, not be used.

The patient should be put to bed, and kept there until his temperature is normal, as he is better off in bed, on account of the weakness and depression. To an adult, ten grains of benzoate of soda should be given in half a wine-glass of water every two hours. The diuretic effect of this drug can be seen after a few doses have been administered, and it has a marked effect upon the temperature, bringing it down to normal more quickly than anything which can be given. A tablespoonful of whiskey should be administered every four hours. In those cases in which the catarrhal symptoms are prominent, washing out of the nasal cavities by sniffing up or spraying with antiseptic solution made according to the formula published by me in a paper in the *Medical Record* some time ago, affords considerable relief. Under this treatment the patient usually recovers in two or three days, but under other methods of treatment, the disease is apt to become chronic, and continue weeks and even months. It has a great tendency to relapse, and finally to become chronic, if not checked in the beginning.

The following comparative tables of symptoms will give a clear idea of the difference in the symptomatology between the three forms of this disease and influenza or la grippe, pneumonia, and typhoid fever:

TYPE IN WHICH THE UPPER RESPIRATORY TRACT IS INVOLVED.

INFLUENZA OR LA GRIPPE.	PRESENT EPIDEMIC.
1. Chills or chilly sensations.	1. No chill, but neuralgic pains mostly in back and head.
2. Malaise.	2. Great depression.
3. Not much fever. Temperature highest in the afternoon.	3. Temperature usually high from the first, Lowest in the afternoon, highest at midnight.
4. Pulse variable, but increasing in rapidity as temperature rises.	4. Pulse out of proportion to high temperature. Not rapid; Never above 100.
5. Thirst, if there is much fever.	5. No thirst.
6. Tongue slightly coated, and dry if temperature is high.	6. Tongue coated in centre, sides and tip clear, but always moist, even at a temperature of 104°–105°.
7. Sneezing, conjunctivæ congested, increased nasal secretion, frontal headache.	7. Sneezing not so persistent, conjunctivæ not commonly found congested, increased nasal secretion, frontal headache, congestion of retina.
8. No membrane in pharynx.	8. Thin white pseudo-membranes on surface of mucous membrane of pharynx, found in a certain set of cases.
9. No tendency to return after restoration to health.	9. Tendency to a second or third attack.

TYPE IN WHICH LOWER RESPIRATORY TRACT IS INVOLVED.

PNEUMONIA.	PRESENT EPIDEMIC.
1. Chill.	1. No chill.
2. Pain about nipple.	2. General soreness of intercostal muscles, severest pain in back and head.
3. Temperature high at first, without fluctuation, gradually developing into an intermittent rise and fall morning and evening, and finally becoming normal.	3. High temperature from beginning, without much fluctuation, highest point in middle of night.

4. Rapidity of pulse coincides with rise of temperature.	4. Rapidity of pulse is not increased to any extent, irrespective of height of temperature. Never above 100.
5. Delirium common.	5. Delirium rare.
6. Course of disease is from 5 to 9 days. Termination by crisis.	6. Under proper treatment does not continue over 3 days. Does not terminate by crisis.
7. Physical signs found in lungs.	7. Absence of physical signs except interrupted respiratory murmur in capillary bronchi.
8. No tendency to repeated attacks.	8. Tendency to a second or third attack.

TYPE IN WHICH ABDOMINAL SYMPTOMS ARE PROMINENT.

TYPHOID FEVER.	PRESENT EPIDEMIC.
1. Patient usually complains several days before giving up.	1. Onset sudden.
2. Chills or chilly sensations.	2. No chill.
3. Headache, pain in back, epistaxis occasionally.	3. No epistaxis, neuralgic pains, mostly in back and head.
4. Tongue coated, brown and dry.	4. Tongue coated in centre, tip and edges clear, yellowish-white and moist.
5. Tenderness in epigastrum and tympanitis.	5. No tenderness. No tympanitis.
6. Stools clay colored.	6. Stools brown or yellow.
7. Diarrhœa usually.	7. Constipation usually.
8. Rose spots.	8. No eruption.
9. Temperature high morning and evening.	9. Temperature low morning and evening.
10. Pulse rapid.	10. Pulse slow.
11. Thirst.	11. No thirst.
12. Delirium common.	12. Delirium rare.
13. Termination — death or slow convalescence.	13. Rapid recovery or chronicity.
14. Sometimes relapses.	14. A tendency to a second or third attack, even after restoration to health.

MEDICAL WOMEN IN THE UNITED STATES.—There are over 3000 medical women in the United States, whose income is said to range from $5,000 to $20,000 a year. The number is also steadily increasing, so that in time we shall probably have as many female as male physicians.

PERISCOPE.

Infantile Diarrhœa.

At a meeting of the Harveian Society recently, Dr. Luff read a paper on the antiseptic treatment of infantile diarrhœa. He spoke highly of Dr. Illingworth's treatment, which consists in the administration of 1-50th of a grain doses of the biniodide of mercury dissolved in iodide of potassium, combined with 1-grain doses of chloral hydrate. The biniodide possesses the property of combining with and rendering the milk ptomaine tyrotoxicon insoluble. Of eighty cases of acute infantile diarrhœa treated by this method, the diarrhœa ceased within two days in seventy-two of the cases, in five out of the remaining eight cases it ceased within four days, and in no case did it last over seven days.—*Chemist and Druggist*, Jan. 4, 1890.

Administration of Castor Oil.

Castor oil is a drug which has not yet been, and is not likely to be, altogether supplanted by its more modern rivals; nevertheless, it has been found that patients often decline to take it, and choose some more palatable but less efficient substitute.

The best way of taking castor oil is thoroughly to mix the dose with about four times as much hot milk,—this is most effectually accomplished by shaking the two together in a bottle which they do not more than half fill. When taken as above directed, the activity of the oil appears to be increased, and, being rendered very limpid by the hot milk, its oily nature is not perceived. Children take it very readily in this form, in which, indeed, it is scarcely distinguishable from rich milk.—*Bristol Med.-Chirur. Journal*, Dec., 1889.

Uremia as a Sequela of Diphtheria.

Although uremia is not commonly recognized as a possible consequence of diphtheria, it is occasionally found occurring in this way, and Dr. J. Cassel has recently reported in a German journal, devoted to the diseases of children, two cases which were met with in Dr. Baginski's polyclinic. The first was that of a little girl nearly five years of age, whose urine had contained blood and a considerable quantity of albumin from the fourth day after the commencement of

the diphtheria. Death took place on the thirteenth day from uremic convulsions and dropsy. Shortly before death the child became paralyzed on the right side. At the *post-mortem* examination, parenchymatous nephritis and œdema of the pia mater were found, but no anatomical cause for the hemiplegia could be detected. The second case was that of a little girl of three years of age. Here not only the throat, but the vulva was affected by the diphtheria. The local disease passed off, and the child was apparently recovering when on the eighteenth day the secretion of urine suddenly diminished very markedly, and albuminuria and convulsions came on. Death occurred two days afterwards. At the *post-mortem* examination it was found that there had been in the first place parenchymatous nephritis, and that this had been accompanied by glomerulonephritis. There was also fatty degeneration of the heart.—*Lancet*, Jan. 4, 1890.

Oxidizing Dentifrice.

Gawalowski recommends the following as a very efficient dentifrice, innocuous to the enamel of the teeth:

Cuttle-fish bone . . . . . q. s.
Peroxide of hydrogen, 4 per cent. . q. s.

Mix the powdered cuttle-fish bone with the peroxide to form a stiff paste, and use this for brushing the teeth, which gradually become bleached.—*Zeit. Oest. Ap. Ver.*

The Effects of the Electric Current on the Female Generative Organs.

It is only a few years since the application of electricity as a therapeutic agent had almost entirely fallen into the hands of quacks. Apostoli has, by his energetic efforts, prominently brought electric therapeutics before the profession and the public, as applied for the treatment of uterine fibroids. Recently, Dr. W. K. McMordie, of Belfast, has made a number of experiments relative to the effects produced by the current in case of uterine fibroids, and in uterine hemorrhage where the cause was obscure. He applied it as follows: One pole attached to a conductor in the form of a uterine sound was placed in the uterus, and the other to a flat conducting surface, was placed over the abdominal parieties corresponding to the fundus uteri.

He found two effects when the current was applied from ten to twenty minutes. When the external os uteri was small it dilated; and, in a considerable proportion of the cases in young females, the sexual orgasm was distinctly produced. It had no effect either on the fibroids or the hemorrhage. So frequently was the sexual orgasm produced that Dr. McMordie gave the treatment up in disgust. It made no difference whether the positive pole or the negative pole was inserted in the uterus.—*Medical Press and Circular*, Jan. 1, 1890.

Senile Articular Changes in Joints and Rheumatoid Arthritis.

Dr. Kasanli has published an account of some microscopical observations he has made on the morbid changes of the various structures of the knee-joint which accompany old age, with the view of comparing these changes with those occurring in rheumatoid arthritis or arthritis deformans, as this affection is frequently called on the Continent. The morbid changes found in the synovial membrane were most marked in the adventitia, and consisted in hyperplasia of the cellular elements and the development of connective tissue in the adventitia, together with thickening of the walls of the capillaries lying beneath the intima synovialis, also in a varicose enlargement of the capillaries, in separation of adipose tissue in the synovial membrane, and in splitting of the adventitia into fibres. In the cartilages the cellular elements were found to be undergoing fatty degeneration, and the interstitial substance to have broken up into fibres, and to have become infiltrated with certain saline matters. In the spongy portion of the epiphysis of the femur the trabeculæ had become very thin, and cavities had been formed by the absorption of the osseous substance of lamellæ, into which the bone near the cartilaginous covering had split up. In the medulla of the bone there was a marked deficiency of medullary elements, the small vessels were affected by a varicose enlargement, and their walls were thickened. These changes, which occur normally in the knee-joint in old persons, are, according to Dr. Kasanli, very similar to those found in rheumatoid arthritis.—*Lancet*, Jan. 4, 1890.

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REPORTER.

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CHARLES W. DULLES, M.D.,
EDITOR AND PUBLISHER.

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NEVER ROLL A MANUSCRIPT! Try to get an envelope or wrapper which will fit it.
When it is desired to call our attention to something in a newspaper, mark the passage boldly with a colored pencil, and write on the wrapper "Marked copy." Unless this is done, newspapers are not looked at.
The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

PERSONAL RIGHTS AND MUNICIPAL HOSPITALS.

In a case recently tried before one of the ablest Judges of the Court of Common Pleas of Philadelphia, the plaintiff claimed damages from the city, asserting that a physician, who attended him in the summer of 1888, mistook an attack of measles for one of small-pox, sent for the city ambulance and had him transported to the Municipal Hospital, which is provided for the care of small-pox patients and other persons suffering with contagious diseases. Here, the plaintiff claimed, the hospital physician made the same mistake as his own physician had made, and placed him in a small-pox ward where he contracted variola in fact, and where he languished for more than three months, leaving with a contraction of one leg which he attributed to the disease. At the trial, Judge Thayer ordered a non-suit to be entered, because the claim was founded upon alleged negligence of one of the servants of the city—the physician at the hospital.

The termination of the case is in accordance with law, although it seems hard, on its face. But, an incidental reason why it is not so hard as it seems, is found in the fact that the plaintiff may be assumed to have gone voluntarily; because, the city has no right to compel a patient to go to the Municipal Hospital. The counsel for the plaintiff cited the Act of 1818, as authorizing the city to forcibly take to the Municipal Hospital a person suffering with an infectious or contagious disease; but Judge Thayer declared that the city cannot forcibly take people from their homes and carry them to the hospital; adding: "I would shoot a man who would come to my home for such a purpose."

It may be well to call the attention of physicians to this case, as we believe there is a prevailing misunderstanding in regard to the subject, and physicians may unwittingly be abettors of an outrage, in leading poor and ignorant patients to believe that they can be compelled to leave their homes against their wish and to be exposed to the risks incident to the removal and to the practical imprisonment in a place where contagious diseases are continually treated.

When a person afflicted with a contagious disease is, or seems to be, unable to secure proper care in his home, a physician discharges his full duty when he notifies the appropriate Health Officer of the facts, and—if he cannot attend him himself—commits him to the care of another physician. It is no part of a physician's duty to endeavor to serve the community by having such a person removed to the hospital for contagious diseases, if this involves any misrepresentation as to the personal rights of the patient.

We do not suppose that any physician would do such a thing, if he knew the law; but it cannot be doubted that it has been done over and over again by those who

thought they were well informed in regard to it.

It has been asserted that the late astronomer Proctor was killed not long ago by his foolish and needless removal from his hotel room to a hospital in New York, and there are probably no cities or large towns in the United States where persons have not been exposed to the risk of disease and death by a combination of errors of diagnosis with errors of law.

It is possible that the laws of other States than Pennsylvania may authorize forcible removals such as we have been discussing; but it would be well for physicians to make sure of their position before they become parties to what Judge Thayer stigmatizes as an outrage on personal liberty which would justify killing the representative of a city's health authorities.

DIAGNOSIS OF EARLY PREGNANCY.

Attention has been called to the subject of early pregnancy, in the Editorial columns of the REPORTER, several times during the past year. The signs of Hegar, Rasch, Jacquemier, and the "fat-bellied jug" sign, have been dwelt on especially as offering the practitioners skilled in making bimanual touch positive evidence of the existence of pregnancy, after the sixth week in a large percentage of cases.

In the *Southern Clinic* for Dec., 1889, Dr. C. Coleman Benson contributes a remarkable addition to the literature of the subject. He says, "Early pregnancy—that is from the second week of conception—can be readily and harmlessly ascertained by the careful introduction of the uterine sound, and digital touch, and the following physical signs will be presented to the examiner: There will be *lengthening* of the *body* of the uterus, with curving at one angle of it near the os of the fallopian tube, either left or right; flaccidity of the uterine walls; *marked dilatation of the internal os* of the cervix, and also of the cervical canal, with pouting and œdema of the os tincæ, and plugging of the canal with a viscid mucus, due to congestion of the entire endometrium."

Truly the contributions to medicine are remarkable! That any one should seriously propose to use the uterine sound to diagnosticate pregnancy passes comprehension, and deserves notice only as one of the curiosities of journal literature.

PYRODIN.

Shortly after Dr. Dreschfeld, of Manchester, England, had published his clinical observations on pyrodin, a new antipyretic, an abstract of his paper appeared in the REPORTER, December 15, 1888. By reference to this abstract, it will be seen that Dr. Dreschfeld spoke of the new remedy in a very temperate way. While he asserted that it reduced temperature quickly and maintained it at a low level for some hours, he declared that it is not safe to continue the use of pyrodin for more than a few days; for, though much more powerful than either antipyrin, antifebrin, or phenacetin, it is also much more toxic than these bodies, the toxicity depending upon the production of hemoglobinemia.

Since the publication of Dr. Dreschfeld's paper, it has been discovered that the pyrodin he employed was a chemically impure substance, the active antitherimic principle of which was acetyl-phenylhydrazin. The name pyrodin has since been given to the latter substance, freed from impurities, by most experimenters; although a few have spoken of it under the name of hydracetin.

It has happened with pyrodin as with almost all new drugs, that some writers have praised and used it indiscriminately. The German writers—Liebreich, Zerner, Oesterreicher, and P. Guttmann—however, have united in speaking of the dangers of the drug, and in warning against its use. In the *Deutsche med. Wochenschrift*, November 21, 1889, Dr. Renvers contributes an article

on pyrodin, based upon observations made in Prof. Leyden's clinic, in Berlin. This article appears to state so fairly both the advantages and disadvantages of the antipyretic in question that the essential parts of it deserve to be reproduced. In effect, Renvers asserts that the antipyretic power of pyrodin is greater than that of any other drug. Fifteen grains given to patients with high fever caused a fall of temperature of five degrees Centigrade in the course of from one and one-half to two hours, and this without the occurrence of symptoms of collapse. He declares that in the stage of typhoid fever when the fever is continuous, he has frequently seen fifteen grains of pyrodin produce a fall in temperature from 105° to 97° Fahr. Usually the temperature rises again after three or four hours, but in one of Renvers' cases of typhoid fever the fall in temperature persisted for thirty-six hours and was then followed by a slow rise to 104° without the occurrence of rigors. Only in pneumonia was the antipyretic action of the drug feeble and transient.

The absorption of pyrodin is said to be very rapid. Five minutes after the administration of fifteen grains, perspiration occurred, first upon the brow and then upon the whole body. It lasted about half an hour, and was comfortable to the patient. As the temperature slowly fell the frequency of the pulse diminished, and the beat lost its dicrotism. The urine was copious, but after forty-five grains of the drug had been taken it showed a mahogany or Burgundy-red color. It contained no blood, but much urobilin, and at times traces of albumin and a few hyaline casts. This dark color of the urine persisted for a day after the use of the remedy had been discontinued. Disagreeable results were observed to follow the use of pyrodin when forty-five grains had been taken in two days. A slowly increasing pallor of the skin and of the mucous membranes set in, slight cyanosis occurred, the patients became reckless, sleepless, and, in short, presented all the symptoms of a severe anemia. In three of Renvers' patients, suffering with articular rheumatism, the use of from forty-five to sixty grains of pyrodin produced jaundice, with great prostration, and a large quantity of urobilin in the urine. The patients required care for weeks to recover from their anemia. The blood changes were interesting. They consisted in a rapid diminution of the red blood cells and an increase of the polynuclear white cells. There were also demonstrable changes in the form and size, as well as in the position, of the red blood corpuscles. The blood plaques were also increased. In experiments upon animals metahemoglobin could be recognized by spectroscopic examination.

Renvers concludes that pyrodin is a direct blood poison, and exerts its antithermic action by a destruction of the red blood cells. His final assertion, however, that it should not be experimented with further, and should be stricken from the list of our therapeutic treasures, is perhaps too sweeping. For a drug in the form of a comparatively tasteless powder, which reduces temperature more certainly than other antipyretics, and keeps it down for a longer period, may possess decided advantages, and these may be made available, while its dangers are being eliminated. The evil results which have followed the use of pyrodin in the hands of the German experimenters named would occur less frequently if the usage of Dreschfeld had been followed. The latter recommended that the drug should not be given (unless the temperature is very high) oftener than once in eighteen or twenty-four hours, and that the dose should be from eight to twelve grains for adults. Dreschfeld also declared that it was not well adapted to employment in cases of typhoid fever, owing to the early appearance of toxic symptoms. While, therefore, on the one hand, it is undeniable that pyrodin is a dangerous remedy, on the other hand it does not seem justifiable to condemn it as unfit for use. All the antipyretic drugs are dangerous in some degree, and it is hardly

too much to hope that pyrodin may yet find a distinct—though, perhaps, limited—field of usefulness, if given in small doses, at infrequent intervals, and with a full knowledge of the condition in which no good can be expected of it, as well as of the toxic results which may follow its injudicious administration.

A CORRECTION.

An unfortunate mistake occurred in the news column of the REPORTER for Jan. 18, in the announcement of the death of Dr. Oliver P. Rex, of Philadelphia. We have since learned that this report, which was not only rumored among the profession but which also appeared in one of our local dailies, was without foundation. Whilst sincerely regretting our mistake, we are, nevertheless, pleased to be able to correct it, and glad to state that Dr. Rex has quite recovered from his illness.

BOOK REVIEWS.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the REPORTER.]

FOODS FOR THE FAT: A TREATISE ON CORPULENCY AND A DIETARY FOR ITS CURE. By NATHANIEL EDWARD DAVIES, Member of the Royal College of Surgeons, England. American Edition. Edited by Charles W. Greene, M. A., M. D. 8vo, pp. 138. Philadelphia: J. B. Lippincott Company, 1889 Price, 75 cents.

Numbers of persons in comfortable circumstances take on an increased amount of fat after the period of middle life, at the very time when, as a rule, physical activity diminishes. In such persons it is common to find evidences of a weak heart. The problem for the physician to solve is, how best to lessen the amount of fat carried by the patient, and at the same time to improve the condition of his muscles, especially the heart-muscle. The generally accepted plan of treatment is to lessen the amount of food containing starch, sugar, and fat, and to improve the muscular system by graduated exercise. The aim of the present author is to show that it is perfectly possible and not very difficult, to go on eating—and eating very well indeed—and yet be cured of excessive stoutness. To this end he gives lists of foods suitable for a corpulent person, and indicates those obtainable (in England) during each month of the year. The lists include lean meats, except pork; game and poultry, fish, oysters, lobsters, crabs, etc.; green vegetables, and fresh fruits. Coffee and tea, with a little milk, and sweetened with saccharin, are allowed as drinks, and so is a weak wine.

Many of the bills of fare presented by the author certainly look very tempting; an epicure could find sufficient to satisfy him, and he might escape obesity to be attacked with gout. Of course, much of what the author declares to be allowable for a corpulent person is beyond the reach of the poor, and even of many in moderate circumstances. But the book is a very suggestive one, and contains many hints in the direction of making a restricted diet contain savory dishes.

EGYPT AS A WINTER RESORT. By F. M. SANDWITH, F. R. G. S., Formerly Vice-Director of the Sanitary Department of Egypt. 8vo, pp. vi, 153. London: Kegan, Paul, Trench & Co., 1889. Price, three shillings and sixpence.

Englishmen go to the Riviera and to Egypt as Americans go to Florida and Southern California. Probably very few Americans will ever visit Egypt as a winter health resort, but as they are the greatest travelers in the world the information contained in Mr. Sandwith's book will be interesting to many.

The author says that about six thousand visitors come to Cairo during the winter months. To indicate how well the climate treats these visitors, he adds that, in a medical experience of six winters, he has lost only two patients who came to Egypt for their health. Both of these, it appears, were patients far advanced in consumption, who ought never to have left their homes: one was an Australian, who reached Cairo at the beginning of 1888, and died there in February; the other was an American, who died in December, 1888, a few hours after reaching Cairo.

The author says that the climate of Egypt, during the winter months, is suitable for bronchial and pulmonary affections which are not too far advanced, and for a great variety of chronic ailments for which a mild dry climate, permitting an outdoor life, is desirable. Much valuable information is given concerning the kind of clothing a patient should bring with him, and how he can derive the greatest benefit from the climate with the least risk from the sudden fall of temperature at sundown, and from the annual changes in the Nile waters. It would appear to be wisest to arrive in Egypt in November, and to depart in May.

The second half of the book is taken up with an account of excursions which can be made from Cairo, from the surrounding towns, and up the Nile.

The book as a whole is a welcome addition to our knowledge of health-resorts and their suitability for different diseases. In an appendix, the author gives detailed information concerning some of the diseases most common among health-seekers coming to Egypt, and the general result of treatment. The publishers have done their part of the work handsomely.

LITERARY NOTES.

We are in receipt of the first number of the *Dixie Doctor*, a new Southern Journal to be published monthly in Atlanta, Georgia. The *Dixie Doctor* for January has 20 reading pages, somewhat larger than the REPORTER; it is well printed on good paper and is made up of short and interesting articles. It is edited by Dr. T. H. Huzza, of Atlanta, and published by the *Dixie Doctor* Publishing Co.

Notes and Comments.

Dengue or Influenza?

An interesting feature of the prevailing epidemic, and one which has attracted considerable attention, especially of Paris physicians, is the fact that the character of the present influenza, or *la grippe*, is quite at variance with the symptoms which have been presented by other kindred epidemics. Thus it is observed that the catarrhal symptoms have been notably slight, the predominant features being fever, muscular pains, prostration, headache, and in some cases even a scarlatiniform eruption. Now, it is pointed out, that the dengue, an affection hitherto almost entirely confined to tropical climates, prevailed extensively in Syria last spring, and has since occurred widely in Constantinople and has even been observed elsewhere in the South of Europe. This fact, says the *Lancet*, Dec. 28, 1889, added to the unusual features of the present epidemic, has given rise to the idea that it is possibly really the dengue, and not the influenza, which has invaded the temperate zone and has been modified by a subjection to altered climatic conditions. At the Academy of Medicine of Paris, Dr. Proust, on Dec. 17, declared that the present epidemic in Paris, although having some features in common with dengue, could not be regarded as being that disease, but that it is really influenza with pronounced nervous symptoms. He stated that dengue has never passed beyond the limits of 45° N. and 25° S. latitude. Rochard added that the characteristic eruption and articular pains of dengue were not exhibited by the sufferers from the prevailing epidemic, and Dr. Colin said that it resembled other epidemics of *la grippe*. Dr. Dujardin-Beaumetz, however, thought there were several points of resemblance between the two affections, and that a hasty conclusion was to be deprecated; on the other hand, Dr. Brouardel held that dengue and influenza were as specifically distinct as typhoid and typhus. Dr. Bucquoy pointed to the analogies between the two, and seemed inclined to the view that the present epidemic is dengue modified by climatic conditions. The patients he had seen complained of muscular or articular pains and presented redness of the palate and a scarlatiniform eruption on the chest. Dr. Bouchardt said that dengue is contagious. *la grippe* is not; and that the latter did not extend along the lines of commercial intercourse, but was apparently influenced by atmospheric conditions. Dr. Proust reasserted his opinion that the epidemic was not dengue, which at Constantinople was not modified by the cold season. He also said that the eruptions noted by Dr. Bucquoy had not been observed by others. At the Medical Society of the Hospitals on Dec. 18, Dr. Legroux introduced the topic of the epidemic, and pointed out how it differed from classical influenza, catarrhal manifestations being exceptional, headache, ocular pain, nausea, colic, and fever chiefly marking it, and recovery following after two or three days in bed. He had seen some grave cases, and cited one of a lady in whom the pains in the head were so severe, with nausea, delirium, rapid pulse, and temperature of 102.2° F., that meningitis was feared. The symptoms disappeared in forty-eight hours under treatment by antipyrin. In children he had observed coryza or bronchitis, or more often gastro-intestinal catarrh. In every case the duration was shorter than ordinary influenza. Dr. Sevestre had noticed two types. In some, the minority, there were features of ordinary influenza. Others were marked by the absence of catarrh of the respiratory passages, by intense pains in the head, eyes, and loins, and by fever. In one-third of his cases there was an eruption on the face resembling either scarlatina or measles, and recalling dengue. In terming such cases *la grippe* the usual meaning of the term was altered. The speakers concurred as to the value of antipyrin. A writer in *Le Progrès Médical*, Dec. 21, 1889, under the heading "Grippe or Dengue," in which the outbreak among the employees at the Louvre at the end of November is stated to be the starting-point of the epidemic that rapidly spread through many large establishments in Paris, refers to the descriptions given by Dr. Le Brun of the Beyrout epidemic of dengue, and suggests that both influenza and dengue are now prevailing in Paris. In particular the characters of an outbreak observed in a large scholastic institution in Paris, are noted as closely approximating to the latter affection—sudden onset with frontal headache or orbital pain, difficulty in walking, pain in the limbs, etc.; rarely cough, but slight tickling in the throat; many have constipation, nausea, or even vomiting. The throat was congested, tongue dry, pyrexia high (102.2° to 104°), and by

the end of the first day a scarlatiniform rash, which became more like that of measles on the second day, when the fever slightly abated. The rash faded on the third or fourth day, when the patients were nearly recovered. In some cases, where the patients got up too soon, there were relapses of fever, with rigors and headache, but no fresh eruption. Desquamation was not observed in any case. Dr. de Ranse points to the discussions at the above-named Paris societies as justifying the hesitation at first expressed by the Russian physicians before concluding that the epidemic at St. Petersburg was influenza. He propounds three questions, which, shortly put, are: 1. Are influenza and dengue distinct diseases or only the same disease modified by climate? 2. May they develop simultaneously in epidemic state in the same region and combine to form a hybrid affection? 3. If entirely distinct, is the present epidemic influenza or dengue? In answering these questions, and concluding in favor of influenza, he rightly says that the exceptional occurrence of some cases showing a rash is not enough to ally it with dengue, and believes that some of the earlier recorded epidemics of influenza would show as marked an absence of pulmonary catarrh as is now presented.

The Characters of the Ocular Fundus during the Hypnotic State.

Messrs. Luys and Bacchi, of Paris, have been investigating the condition of the ocular fundus with the ophthalmoscope in patients who had been previously hypnonized, and their conclusions are recorded in a recent number of *La Presse Médicale*. Nine subjects, six females and three males, were successively submitted to ophthalmoscopic examination, the examination being undertaken during a period of catalepsy, of lucid somnambulism, and in the mixed condition of fascination. The normal state of each fundus was first carefully noted, especially the exact tint of the fundus, and the retina was observed to be divided into three concentric zones. The subjects of the investigations were then placed in a cataleptic state, and the fundus examined. The fulness of the retina was found to have suddenly disappeared. The discs were of a rose tint, the three concentric zones became mingled with one another, and at the same time the arteries and veins became more or less enlarged. This hyperæmic condition remained as long as the subject continued in the cataleptic state. The iris also was dilated, and almost insensible to light. The same features were observed to occur during the state of fascination. In the period of lucid somnambulism the changes were not markedly different, although the disc was less injected. The iris was also more responsive to light.—*Medical Press and Circular*, Dec. 25, 1889.

The Psychology of Epidemics.

Every epidemic carries in its train curious exaggerations of many well-recognized characteristics, and these frequently call for appreciation and for treatment almost as much as the disease in which they originate. Perhaps one of the most striking of these mental perversities is to be found in the idea that the epidemic is to be treated by "common sense," or by nostra which have been largely advertised, or by specifics which are known to the laity mainly through their frequent mention in the daily press. Those suffering under this delusion feel that it is wholly unnecessary to seek skilled assistance, and they boldly dose themselves with remedies of whose power and properties they are absolutely ignorant. In Vienna it has already been found necessary to forbid the sale of antipyrin, except under doctor's prescriptions, as no less than seventeen deaths were attributed to stoppage of the heart's action owing to overdoses. The freedom with which the prescription of this remedy has been assumed by the public has long since been viewed with anxiety by the medical profession, and frequent warnings have already fallen upon deaf ears; and yet it is to be feared that if the epidemic of influenza should spread, many more examples of recklessness will have to be recorded. It is serious enough to cope with an epidemic and its sequelæ, without having matters complicated by ignorant and reckless experimental therapeutics.—*Lancet*, Jan. 4, 1890.

Pennsylvania Hospital.

At a special meeting of the Medical and Surgical Staffs of the various departments of the Pennsylvania Hospital, held January 8, 1890, the following resolutions were adopted:

Resolved, That by the sudden death of

Dr. James H. Hutchinson, we have been deprived of a valued and beloved associate, while the Hospital has lost an able and faithful officer, the medical profession a distinguished ornament, and the community one of its best citizens.

Resolved, that we hereby place upon record our high estimate of the character of our departed colleague, who, during the many years of his professional life among us, commanded our respect by his ability and sterling integrity, while his genial and kindly disposition won for him our warm friendship; he has left behind him a spotless reputation and a memory which will be always dear to those who were privileged to know him.

(Signed) JOHN H. PACKARD, M. D.,
Secretary of Staff.

Antiseptic Mouth Wash.

Dr. Miller gives the following formula for an antiseptic mouth wash, in the *Allgemeine Med. Central-Zeitung*, Nov. 16, 1889, and states that it will completely sterilize the mouth, is not unpleasant to the taste, and is innoxious.

℞	Acid thymic	gr. ijss
	Acid benzoic	gr. xxxviij
	Tinct. eucalypt.	f℥jv
	Hydrarg. bichlorat.	♏xiij
	Alcohol	f℥jv
	Ol. menth. piper	♏xij

M.—Sig. Add sufficient quantity to a glass of water to produce slight cloudiness, and use as a mouth wash.

Borated Lanolin.

The following preparation is recommended as being excellent for softening the hands or general toilet purposes: 1 part of borax is rubbed with 10 parts of lanolin, and 100 parts of water are gradually added. This makes an emulsion in which the lanolin is very finely divided and quickly absorbed by the skin. It may be blended with glycerin and perfumed.

Permission to Operate.

Medical circles in Belgium have been considerably excited recently by the trial of an action against a well-known surgeon who is on the staff of a hospital in Liège. More than two years ago a child was brought to the hospital for the advice of the surgeon in question on account of a curvature of the tibia. The mother was told that an operation would be necessary, to which she replied that she must obtain the grandmother's consent. Shortly afterwards the child was brought back to be operated on. Unfortunately, gangrene had supervened, and the child's leg had to be amputated. After the lapse of some two years, the father of the child appeared on the scene, and, declaring that his consent to the operation had not been obtained, commenced an action against the surgeon for having operated without it, the result being that the court awarded him 10,000 francs damages as compensation for the loss of the child's leg. It is pointed out by medical critics that the court seems to have proceeded on the principle that a surgeon who operates is liable unless he can prove that a child's father has consented. It seems to have been taken for granted that when the child was brought to the hospital the second time it was merely for another consultation, and that no consent had been given as understood by the defendant. An appeal to a higher court has been made, and the result of that is very uncertain. It is, however, evident that great care will have to be exercised by hospital surgeons in future, at least in Belgium. Indeed, it would seem that a written permission to operate may have to be insisted on in all cases in that country.—*Lancet*, Jan. 4, 1890.

Cholera and Europe.

The epidemic of cholera which has, for so many months been raging in the valleys of the Tigris and Euphrates and the interior of Mesopotamia, has also made considerable inroads into Persia. Reports of the epidemic having crossed the western boundary of Persia have been heard from time to time, but it has now been announced to the Faculty of Medicine, of Paris, that there has been an alarming increase of the disease in Central Persia and on the Turko-Persian frontier, and that the inhabitants are fleeing towards the north. All those who can afford the journey are trying to reach the Russian ports on the Caspian. Remembering that this is the route into Europe which the cholera has so frequently taken, the announcement must be regarded as one of great gravity.

NEWS.

—Professor Eberths, of Halle, has succeeded Professor Weigert as editor of the *Fortschritte der Medizin.*

—The various courses of medical instruction, lectures and clinics in connection with the Johns Hopkins Hospital, Baltimore, were inaugurated Jan. 6.

—Dr. Louis J. C. Kimmell, of Philadelphia, died suddenly of pneumonia, Jan. 19. Dr. Kimmell was a graduate of the University of Pennsylvania, of the class of 1886.

—Dr. Butz, of St. Petersburg, Russia, claims that 650,000 cases of influenza were reported during the recent epidemic; or, in other words, that one-third of the population of that city suffered from the disease.

—According to the last report of the Board of Health of Michigan, the influenza is still on the increase in that State; the percentage of observers reporting the disease having increased from 77 (last week) to 82.

—Dr. Paul Hoffman, Assistant Superintendent of Schools of New York, was taken to Bellevue Hospital on Jan. 4, a raving maniac from the effects of an attack of the grippe which he had been suffering from for several days.

—A male attendant of the insane asylum of Columbus, O., eloped with one of the patients, a young lady, 19 years old, on Jan. 19. The patient had been in the asylum for six months, and her case was not considered serious.

—At the annual meeting of trustees of the State Miners' Hospital, located at Ashland, Pa., Dr. J. C. Biddle was re-elected Surgeon and Superintendent of the hospital. Dr. Biddle has been connected with this institution ever since its opening some five years ago.

—Dr. William Goodell, of Philadelphia, has been invited by the Gynecological Section of the Tenth International Medical Congress, which is to be held in Berlin, during August of this year, to open the discussion on the Induction of Premature Labor, by a paper on that subject.

—A peculiar suit for damages has been brought against a Philadelphia physician. The complainant states that the doctor in question positively pronounced her to be pregnant, but time proved the erroneousness of the diagnosis. She therefore brings a suit on the plea of "bringing disappointment."

—The Shreveport Medical Society held its regular meeting on Jan. 7.

The annual election of officers resulted as follows: President, Jno. J. Scott, M. D.; vice-president, H. C. Coty, M. D.; recording secretary, A. A. Lyon, M. D.; corresponding secretary, Randall Hunt, M. D.; treasurer, Walter Hilliard, M. D.

—A widow in New York has brought a suit for damages against a well-known specialist for taking her husband's brain, and also for violating an alleged contract to give her $1,000 for using her husband as a medical object-lesson. The physician denies any promise of $1,000, and states having sent the widow $25 out of sympathy.

—There were 416 deaths in Boston during the week ending January 11. One hundred and nineteen people are reported to have died of pneumonia, and a large number of these cases were caused by the prevailing influenza. In the corresponding week last year there were but 12 deaths from pneumonia and but 180 deaths altogether.

—The arrival in Havana, Cuba, is announced of Dr. Hamilton, of the Marine-Hospital Service, and Dr. Horlbeck, of the Charleston Board of Health. They are a part of a medical committee empowered to make a midwinter inspection of the yellow-fever habitats in Cuba and also of the Key West quarantine, Tampa, Sanford, and other exposed points in Florida.

—For the week ending January 4, 1890, there were 492 deaths in Philadelphia, and 1,202 deaths in New York. For the week ending January 11, 714 deaths occurred in Philadelphia, whilst the latest report for the week ending January 18, shows that the number of deaths has further increased to 777. This startling mortality is claimed to be largely due to the prevalency of the influenza.

—A county hospital has just been completed in Omaha, but the contractors cannot get anybody to accept it and take it off their hands. The county commissioners refuse to accept the hospital except from the hands of the architect, and the latter for some reason cannot be found. The result is that the contractors have a very fine hospital on their hands, but do not know exactly what to do with it.

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CLINICAL LECTURES.

EMBOLISM IN HEART DISEASE.—PHTHISIS.—TYPHOID FEVER COMPLICATING PHTHISIS.—CARDIAC FAILURE IN MITRAL REGURGITATION.

BY THE LATE JAMES H. HUTCHINSON, M.D.[1]

Gentlemen: I will begin this morning's lecture by showing to you the specimens from the autopsy of the woman whom you will recollect I brought before you suffering from a disease of the heart with paralysis of the left side. You will recollect also that she had had, at various times, hemorrhages in different parts of her body. On admission there were small petechial spots upon her abdomen and chest, and an examination of her eyes revealed small retinal hemorrhages; while occasionally she had hemorrhages into her conjunctivæ. She also had a greatly enlarged spleen. It was, in fact, double the usual size. At that time I called your attention particularly to a loud, purring, musical murmur, heard best over the apex of the heart, and systolic in point of time, and therefore due to insufficiency of the mitral valve. Her condition on admission was very peculiar. She seemed somewhat dazed, and it was difficult to get a correct answer from her. She could not tell us her name or residence, and when asked if she knew where she was, replied "In the Pennsylvania Railroad" instead of "Hospital." Later, however, she regained her healthy condition as far as her mind was concerned. In August she was suddenly seized with a fainting attack, and on her recovery it was found that she was paralyzed on her left side. Taking into consideration the fact that she had this extensive disease of the heart, together with the existence of the hemorrhages over her body, I made the

[1] Delivered at the Pennsylvania Hospital.

diagnosis of embolism of the middle cerebral artery of the right side, and the autopsy has confirmed this opinion. Just before the close of her life there were symptoms which were possibly due to an embolism in some of the smaller vessels on the other side of her brain. It is also very possible that her dazed condition, on admission, was due to an embolism in a small arterial branch supplying the Island of Reil on the left side. She had what is called "amnesic aphasia," inability to remember the names of objects or places. As you will remember, the patient was emaciated and extremely anemic. Last week she died.

Embolism consists in the washing away of a clot or of a vegetation from the heart into the circulation, and its lodgment in some artery of the body. Of course, this embolus may get into some artery where it will do little or no harm, as in one of the arteries of the liver, where the collateral circulation is large. Then again it may lodge in the spleen, which is, in fact, the organ in which emboli are most frequently found. This shuts off the circulation from a portion of the organ, and a peculiar change takes place, called an *infarction.* If the embolus is carried into an artery of the brain it is followed by still more serious results. The circulation of a portion of the brain is shut off, and symptoms are produced closely resembling those produced by an effusion of blood. We may have in the beginning, however, symptoms of excitement. If the artery is large, we will have paralysis which may take place suddenly or gradually. If the embolus does not entirely occlude the artery, there will be a certain amount of circulation still carried on, and the functions of the brain continued imperfectly, but sooner or later the clot which forms around this embolus will entirely occlude the artery and the paralysis becomes complete. If, on the other hand, the artery is completely occluded, the loss of power will be sudden. Other arteries besides those just alluded to are often affected. The first case of embolism I ever had under my care was one of the iliac artery in which gangrene of the foot followed and eventually caused the patient's death.

I show you here in the spleen of this woman an example of infarction which I have described to you. It does not show as clearly to-day as it did at first. You see this triangular patch, different in color from the surrounding parts. It has begun to break down. Here is another not so soft. No doubt if I were to cut into the other parts of the organ I would find still others. The same condition will take place in the kidney, but never in the liver, because of the peculiarities in the circulation of that organ. I now show you the heart which was the cause of all this trouble. Here is the mitral valve covered with numerous vegetations, many of which have but slight attachments to the valve. We seldom see a valve so completely covered with vegetation. There are also a few here on the aortic valve, which probably give rise to slight degree of obstruction of the aortic orifice, and consequently to a slight murmur which was marked by the louder mitral murmur. It is a question whether this dense vegetation is the result of an ulcerative endocarditis, but my colleague, Dr. Longstreth, the pathologist of the hospital, thinks not. The brain on the side where the obstructed artery was is very much softened. The middle central artery on this right side is occluded, and is little more than a fibrous cord. If the embolism had been on the left side of the brain, the woman would have had aphasia, in addition to the other symptoms. This patient before the occurrence of the embolism of the brain, had an attack of fainting, and it is possible that a small clot formed in her heart during this time which was washed out, producing the occlusion, but I think that it was more probably due to a piece of vegetation.

Phthisis.

I wish also to show you some specimens from a case of phthisis. The patient, who was a colored woman, was brought into the hospital in an almost moribund condition, but under the administration of stimulants reacted and lived for over three weeks. Both lungs are extensively diseased and riddled with abscesses, so that there is very little lung tissue left. She died of hemorrhage which was considerable in amount, and you can see here the vessels running across this cavity of the rupture, which probably gave rise to it. There are cavities at both apices, and during life there was here marked gurgling, amphoric respiration, and the peculiar sound known as the "cracked-pot" sound, produced by the blow upon the chest causing a sudden expulsion of air from the cavity. The sound is best heard when the mouth is open. It is most easily produced when the cavity is superficial and the chest-walls thin.

In pneumonia of the apex occurring in young people we can sometimes produce it, but it is never heard in adults without the presence of cavities. In the sputum of this patient were found elastic tissue and bacilli. The kidneys are large, the heart normal.

Typhoid Fever Complicating Phthisis.

I will now bring before you a young girl to show you certain physical symptoms which exist, indicating a certain amount of affection of the lungs. The patient is 22 years old, single, a box-maker by trade, and was admitted on the thirteenth of August. She had been ill for some time before this, and was supposed to have incipient phthisis. During her stay in the house she had a considerable rise of temperature, and with this had one or two rose-colored spots on her abdomen together with ochre-yellow stools. In examining the temperature sheet we find two very decided rises of temperature since her admission. The first occurred very shortly after her admission, and for two weeks we see but a slight intermission in this fever. It was followed then by a period of complete apyrexia, with occasionally a subnormal temperature. Towards the close of the fourth week the temperature rose again decidedly and rapidly and continued high for some time, when it gradually declined. With this chart, and the history of spots and some tendency to diarrhœa, I have no hesitation in saying that the patient has had an attack of typhoid fever followed by a relapse. Since then she has had an irregular temperature up to the present. It is now a very little above normal. The physical signs now present were present when she was admitted. The typhoid fever, then, is a complication of the phthisis, and not the phthisis a sequel of the fever. There is no very great activity in the disease at present. There is no very marked symptom on inspection, no falling in of the chest on either side. On full inspiration there is a little more movement on the right side than on the left. The vocal fremitus is more marked on the right side than on the left, but this is normal. On percussion there is a marked difference between the two sides, there being dulness at the left apex. Immediate percussion shows an entire absence of resonance under the left clavicle. This is also noticed posteriorly, though less markedly. On auscultingher chest I find well-marked gurgling due to the breaking of bubbles in a cavity. The character of this bubbling depends upon the size of the cavity; if this is large, there is coarse bubbling; if small, very fine bubbling. This cavity is not very small. In addition to the gurgling we have also a certain amount of cavernous respiration due to the movement of the air in a cavity. Cavernous and bronchial respirations have certain points of resemblance, but in bronchial respiration the expiratory sound is higher in pitch than the respiratory, while the reverse of this is true of cavernous respiration. This is a very important difference. There is cavernous resonance also under the left clavicle. In some cases we have pectoriloquy, but this is not present in this patient. There has been here a certain amount of breaking down of the left lung and apex, but there is reason to believe that the condition is not active at the present time, as she is improving in strength, health, and weight, having gained six pounds in the last month.

The treatment here should be a nourishing diet, with remedies to build her up. Three examinations of her sputum have not revealed bacilli, though fibrous tissue has been found. The point of special interest in the case is the proof of our power of recognizing the pre-existence of typhoid fever from a study of the temperature chart. The chart is not typical, but we have certain characteristics always found in typhoid fever: the primary rise in the first week followed by a period of high temperature, and this by a period of decline, and finally by a period of subnormal temperature, especially in the morning.

Cardiac Failure in Mitral Regurgitation.

We had brought into the house a few days ago, a woman in a condition of extreme cardiac failure. She is a Russian, and we cannot get from her any history of value. When brought in she was exceedingly depressed, gasping for breath, with cyanosis of her lips, nails, and tip of nose, in fact, in a condition of almost arrested action of the heart. On examining her further we found a very distinct mitral murmur, best heard at the apex, harsh in quality, and therefore indicating mitral regurgitation. No enlargement of the heart could be discovered, but there was a certain amount of emphysema which marked the area of cardiac dulness interfering with our examination. Her chest was full of mucous râles, and there

was a drawing in of the base of the chest on full inspiration, the result of over-action of the diaphragm in her efforts to breathe. The resonance was clear, the movements of the chest diminished. Her temperature has been sub-normal with one exception since her admission. This is apt to be seen in cases of so great depression. The examination of the urine was negative. To-day there is a slight blue tinge of her cheeks and nose. She spits up a large amount of mucus or muco-purulent material, but this is diminishing gradually. I do not believe that it contains either bacilli or fibrous tissue. On examining the chest, we find that in spite of this bronchitis the resonance is normal. The other day there was a slight degree of dulness at the left apex, indicating a slight congestion there, but there is no pneumonia or organic change there.

These symptoms demand very active treatment. The patient is suffering with orthopnœa. Her lung condition is an effusion into the bronchial tubes, rather than a true bronchitis. The first thing to do in such cases is to produce active revulsion, and the best way to do this is to apply dry cups all over the chest. Turpentine may be applied very vigorously by wringing a flannel out of hot water and sprinkling the turpentine liberally over it. If this is not at hand, a hot poultice may be used, or heat applied in some way. In addition, digitalis should be administered very freely, ten drops every hour, if you can remain with the patient, until an effect is produced. With this may be used carbonate of ammonia, which is an active expectorant, as well as a stimulant. No doubt this patient has had a disease of her heart for some time, and as a result it has become weakened, and under the additional strain of a small amount of bronchitis it has given out. She will recover from this condition, and as soon as she is able we shall endeavor to improve her general condition by giving her cod-liver oil, iron, malt, and other nutritive remedies.

Iodine in Seaweeds.—*Fucus vesiculosus* has been examined by L. van Italie with the view of ascertaining how much iodine the plant contains and in what form it exists (*Arch. d. Phar.*). He found the percentage of iodine to be 0.0113, and that it exists as an iodide. The plant was examined for bromine without definite result.

GREEN-STICK FRACTURE OF FOREARM.—GUN-SHOT WOUND OF ELBOW.—COMPOUND FRACTURE OF OLECRANON.—NON-PENETRATING PISTOL-SHOT WOUND OF ABDOMEN.—BURSITIS OF KNEE.—FRACTURE OF BONES OF LEG.—NECROSIS OF CARPUS.—HEMORRHOIDS.[1]

BY JOHN H. PACKARD, M. D.,

VISITING SURGEON TO THE PENNSYLVANIA HOSPITAL, ETC.

Green-Stick Fracture of Forearm.

Gentlemen: To-day I bring before you, first, a very interesting case of green-stick fracture of the forearm, in a child, fourteen months old, who had a fall from a table three weeks ago. It was not detected, however, until a week and a half after the accident. The child has been under treatment, but the arm is not entirely straight yet. There is a slight bowing of the arm, and some callus has been deposited here. The deformity is not apparent upon the radial side of the arm, but is quite distinct on the ulnar side. I shall use this piece of binder's board to make a suitable splint. I bend up the edge of the board so as to make a complete support for the ulnar side of the forearm; then pad it thoroughly to prevent any irritation of the skin, making the mass of cotton perfectly even and uniform. This, you see, will prevent any excoriation. I have here a wooden splint upon which I shall depend for the maintenance at rest of the entire limb. It is not properly finished, and I must alter it. Were the arm placed upon it as it is, the edges of this perforation for the epitrochlea, being sharp, might cause serious irritation, or even excoriation. I carefully round this edge off and also all of the other edges and corners of the splint. This, I think, is of special importance in the case of a restless child. In straightening this arm, which you see I can do with ease even after three weeks, I apply first this binder's board splint, and then the inner splint, securing them with a suitably narrow bandage somewhat firmly applied. I have purposely made the dorsal splint slightly narrower than the forearm, in order

[1] Delivered at the Pennsylvania Hospital.

to bring the pressure upon the ulnar margin. This case should interest you, because it is only rarely that one has the opportunity of seeing these green-stick fractures.

Resection of Elbow-Joint for Gun-Shot Wound.

I shall dress this young man's arm before you again to-day, to show you the course of the case. You remember that he had the entire outer side of his elbow carried away by the discharge of a gun close to him. The condyle and epicondyle of the humerus were shot off as well as the outer edge of the head of the radius; and there was much loss of skin, but the vessels were not injured. I excised the joint two weeks and a half ago, so that to-day is the seventeenth day since the operation. Even after the excision of the bone, there was some difficulty experienced in bringing the edges of the skin together, so much of it having been destroyed at the time of the injury. You see that he is able to move his fingers and his elbow-joint to a certain degree. The wound has been dressed as usual, with iodoform and iodoform gauze; the arm has been kept in a splint, not because I desire to keep the joint still—to stiffen it, as in the case of a knee, but to afford protection from any accidental violence until the healing of the wound is complete. I replace the splint, therefore, simply as a matter of precaution.

Compound Fracture of Olecranon.

I will now show you another case of injury of the elbow in which I operated about eight days ago. It is a case of great interest: a separation of the olecranon process of the ulna by a blow from a shovel. It was, in fact, a compound fracture, the edge of the shovel striking the elbow and cutting the olecranon off. I sutured first the process to the ulna, and then sutured the surrounding fibrous tissue. I cannot take any liberties with the arm to-day, but there is every reason to believe that union is taking place, and that the man will have a good joint. He has been sitting up to-day, but has hitherto been kept in a recumbent position. The wound is entirely healed, and there is some little motion in the joint, but we cannot flex the arm for fear of putting too great a strain on the sutures. The resident will replace the dressing in the ward, while I show to you this next case.

Pistol-Shot Wound of Abdomen.

This case is one of a pistol-shot wound of the abdomen, the ball lodging in the abdominal wall, which in this man is provided with a thick layer of fat, and prevented a penetration. He says that the ball gives him pain at a certain point, and desires to have it removed. If it was not a source of actual annoyance, I should let it alone. In making the incision in the skin over the supposed site of the ball, I do it obliquely. In this way I can keep the edges in better apposition than if I cut directly down, and thus shall secure healing without any scar. The ball entered a little to the right and below the umbilicus, and to the left of this there is a hard swelling; over this spot he complains of pain on pressure. I now explore the incision I have made, but am not able to discover the ball. It sometimes happens that a ball has traveled further than is suspected. This ball is said to have been a very large one, 32 calibre, and it is rather surprising that it should not have been more readily traceable, either now or at the time of injury. I shall not undertake to dissect in search of the ball, without a clue to guide me. The tenderness on pressure here is simply that which accompanies the inflammatory induration. There is no danger of damage to the peritoneum in what I have now done, because of the amount of fat upon the abdomen. The ball is nowhere in the range of the wound, but has probably lodged in the abdominal wall some distance from this point, and I shall simply introduce drainage and close the wound. To do this I enlarge the original wound a little and insert a catgut drain through both wounds. I wish to call your attention to a popular error,—the belief that it is of great importance that a bullet should be found and extracted. Very often, by the time the ball has reached a lodgment, it has done all the damage it is likely to do. Its mere presence is of no moment unless it is in a position where it cannot remain quietly. The patient and his friends are always encouraged if they can see the ball after it is taken out, because they think its removal means greater safety.

Bursitis of Knee.

Two weeks ago I brought before you this man with an inflammation and swelling in the neighborhood of the right knee-joint. I then considered the question, whether the inflammation was within the joint or outside

of it. A day or two later I freely opened the swelling and let out a very large quantity of pus. I made drainage through the popliteal space, and a counter-opening in the opposite side of the joint. To-day I bring him before you to show you the great improvement in his condition. You remember he was suffering greatly. His temperature before the operation was 103°; after the operation 101°. It then fell to 98½° and since then has only been a trifle over 99° on two or three occasions. You see the opening here below for drainage, the opening I made into the swelling, and the opening on the other side to permit free drainage. The patella is now quite down upon the end of the femur. There is no suppuration to-day, and I shall simply put on a dry dressing. In a few days I shall let the man get up and attempt to walk. He has perfectly free motion in his joint. I want to show you the splint I used, which was very convenient, and easily made. It is simply a piece of tough binders' board, and rude in appearance, but by means of cotton it can be made to fit any limb. It is as good as the Day splint, and better than the McIntyre splint used abroad. If I had not opened this swelling, the inflammation might have extended into the joint and given rise to serious damage.

Fracture of Bones of Leg.

The case now before you is one of injury close to the knee-joint. The patient is a woman, 67 years old, who was run over three or four days ago by a wagon, and brought into the hospital with her limb in the bruised condition you see. On examining the limb, as I steady the femur above and grasp the leg below, I can sway the limb from side to side. You will remember that in a healthy knee you can have no lateral motion. Here we have either a damaged joint or damaged bones. As I examine more closely I find that there is a fracture of the tibia extending into the joint, and a fracture of the fibula a little below its head. The importance of this injury is very great. I will apply a splint externally along the whole limb to keep the joint perfectly at rest. These cases of fracture of the leg close to the knee-joint are very rare. In a child, it must be remembered that lateral mobility may be due to damage to the bones just above the knee, as well as just below, from a separation of the epiphysis of the femur. You can differentiate these cases by a most careful examination to ascertain the point at which the motion takes place.

Necrosis of Carpus.

This woman came into the hospital, saying that she had sprained her wrist four weeks ago. As you see she has had a cellulitis here, and free incisions have been made in the back of her hand to relieve this. You can see when she endeavors to move her hand, that the movements are jerky, with no steadiness whatever. As I move her hand in this way I feel a slight grating beneath my fingers, and I know I could, with but little trouble, displace this wrist-joint. With my thumb and finger over the joint, a sense of looseness of the carpal bones is appreciable, and I can feel them moving distinctly on each other. I think there is dead bone here, perhaps involving the whole of the carpus. I am not at all prepared to say that this woman had simply a sprain of the wrist, but she has in some way damaged the periosteum to such an extent that the bones have lost their life. The hand will never be of any use and the best thing to do would be to remove it, but I shall wait till she herself sees the wisdom of this and asks to have it done.

Hemorrhoids.

Here is a case of hemorrhoids upon which I will operate by means of the clamp and cautery. The subject is a man, 64 years old, who has suffered with these piles for twenty years. I have explained and shown you several different operations for hemorrhoids; excision for the external, ligation for the purely internal, ecraseur for those which combine both varieties. In this case we have two piles, one wholly external, the other partly external and partly internal; as the man's condition is perfectly good, and there is no local inflammation, I am going to use the clamp and cautery. By so doing I expect to get a more rapid and easy cure than by either of the other methods. The blades of this clamp are covered with ivory to protect the tissues. This is placed next to the skin, and the pile firmly clamped. I snip off the hemorrhoids with a pair of curved scissors, and then touch the surface with the cautery at a black heat. Then loosening the clamp I touch up any bleeding point with the cautery. The patient lies upon his left side with the right knee drawn up, giving me complete access to the parts. An iodoform dressing is applied, and a pad of sublimate cotton, with a T bandage.

COMMUNICATIONS.

THE TREATMENT OF RHEUMATISM.[1]

BY ELMORE S. PETTYJOHN, M. D.,
CHICAGO, ILL.

Few diseases have had so many recommended remedies and vaunted specifics for their alleviation as rheumatism. Nevertheless, there are certain well-recognized principles of treatment directly applicable in this disease. The treatment differs in the acute and chronic forms of the disease only in degree and detail. The former we are now to consider.

It is plain that we must alleviate pain, reduce temperature; open the emunctories of the system, rid it of the *materies morbi* that it contains as partly the cause, partly the result of the systemic disturbance. The patient's room should be large, well aired, and one where the sunshine is a daily visitor. The air should be at an even temperature of 70° F. Two beds should be used, one during the day and the other during the night. No linen should touch the skin, and the patient should wear flannel or woolen undergarments night and day, during and always subsequent to an attack. Absolute rest of mind, body, and eyes should be enjoined. Affected joints should be enveloped in wool kept in position by a slight bandage. If not greatly swollen a plaster of Paris bandage should be applied, the limb elevated, and the joints immobilized. Opiate lotions, evaporation being prevented by oiled silk, are to be used when the capsular ligament of the joint resists expansion and the plaster bandage is not used. Blistering, bleeding, leeching, and cupping, as practiced by Sydenham, are replaced by general remedies indicated, combined with antiseptic alteratives, laxatives, diuretics, and tonics. The diet should consist of liquid food and custards, lemonade, citrate of potassium in solution, and other acid and cooling drinks may be given along with an abundance of water, effervescing waters and milk. In extreme hyperpyrexia, uncontrolled by moderate doses of drugs, the cold bath, in which the water is cooled rapidly but gradually down from 94° F. to 68° F., should be used; its effects being watched carefully. The warm bath should be used daily for 20 minutes during convalescence, except in asthenic cases, when it should not be continued so long nor used so frequently.

Without discussing the chemical reactions and the therapeutic rationale of modern remedies used, we desire to note the clinical results, so near as ascertainable, of a few of the more valuable drugs used in the treatment of this disease. Antipyrin, according to Sée, Guttman, and Stezeninski, in doses of from four to six grains per day and continued for a week or ten days, produces beneficial and satisfactory results. They hold that it is found efficacious where antifebrin and the compounds of salicylic acid have apparently failed. Its use, they say, reduces temperature, alleviates pain, and prevents implication of the cardiac membranes, without producing any of the unpleasant effects caused by salicylates. The beneficial results obtained by the drug in these cases are stated to be 41.8 per cent. Fowler's solution in 5-drop doses gradually increased, according to tolerance, and then reduced to one-half of the last dose given, and continued for several weeks or months, as in chorea, seems to have produced excellent results in mild non-febrile cases. Cascara sagrada has been extolled by Dr. Goodwin and others, given in 15 to 20 minim doses every four hours. No attempt has been successful in explaining its action. The salicylate compounds being among the most powerful antiseptics known, I believe, on this account, to be the sovereign remedies in the treatment of rheumatism. These should be used along with laxatives, alteratives, stomachics, tonics, eliminants, and proper attention to general rational indications. To Maclagan, Stricker, and Riess we owe credit for bringing this remedy to the notice of the profession. Salicin produces many similar effects to those of quinia.

In an acute case the treatment with salicylate of sodium or salicin should be commenced by giving 20 grains of the drug in elixir or lemonade every two hours for the first twelve hours, or until *tinnitus aurium* is produced. The same dose is to be continued every three hours for the next twelve hours, and thereafter for four or five days the same amount is to be given every four hours. The regulation of the amount given is to be determined by the abatement of the symptoms—*i. e.*, the reduction of temperature, the relief of pain, and the depression of the heart's action. The most frequent

[1] Read before the Chicago Pathological Society, Nov. 11, 1889.

cause of failure in the use of this remedy is in not giving a sufficient quantity at each dose or not repeating the amount frequently enough. Whenever the symptoms begin to subside the amount or the frequency or both should be diminished to the point of saturation, but the remedy should be administered for at least two weeks in every case. I have found good results within the first forty-eight hours, and the more acute the case the more effective the result of the remedy. In treating 160 cases I have not found any who have not obtained benefit, and 60 per cent. of the primary acute cases have been entirely relieved. I believe the heart and brain complications sustain the same relation to the schizomycete, or the blood changes produced by its presence, along with the local inflammation, as does the joint affection. I have not noted heart or brain mischief, where the salicylic treatment has been used from the beginning, and there was no previous heart lesion ; only later on, where the salicin had not been used until inflammation had already occurred in the cardiac membranes, upon which the salicin itself has no direct effect. But to cure the rheumatism is not to cure the heart lesion, for the effect may remain after the cause is removed. The appropriate treatment of the rheumatism at its inception ought to prevent the heart from becoming affected. After it is once affected, however, relief is only obtained in the same way as if the inflammation had arisen from other causes. The same is true of inflammation of the dura mater. I speak of these because I believe the only immediate or remote danger to life in cases of rheumatism to be in the implication of these organs.

After the more acute symptoms have subsided quinia, cod-liver oil, iron, Fowler's solution and the iodides should be administered for weeks and even months as the inflamed textures do not recover their tonicity as soon as the inflammation ceases. The administration of salicyl compounds arrests the course of this disease chiefly by their antiseptic action, destroying or rendering inert the schizomycete concerned in its production. They also have an acid and diuretic effect. They reduce the temperature by removing the source of the inflammation by which the temperature is produced, and thus relieve tension and pain simultaneously. They thus arrest the course of the disease by removing its cause. By the elimination of the *materies morbi* through the emunctories of the system, accomplished by the use of our ordinary remedies, we have the system again restored to its normal state, save the effect of the attack upon it of the specific schizomycete which has produced the malady, and possibly the retention of some of the microbes for future ravages whenever the condition of the system becomes favorable for their multiplication and renewed activity.

I quote briefly two cases from my notes in illustration. The first a severe acute rheumatism.

Case I. I was called early in the morning of November 6, 1887, in consultation by the family, with Dr. Louis Braun, to see T. J. E., a man 32 years old, who had been sick in bed a week and was thought to be growing rapidly worse. The patient had not slept, except by use of opiates, for four nights, and with hypnotics only a few minutes at a time. He was very pale, with an anxious expression of the face. The pulse was 120, weak and irregular, the respiration was somewhat labored, 26 per minute; the temperature was 103° F. He was bathed in perspiration, which had been so profuse as to saturate bedding, requiring it to be changed twice daily. The patient had vomited everything he had taken for the last twenty-four hours. The effort of vomiting had exhausted him, increased the prostration, and made the pain so much greater in the swollen, tender joints that he now absolutely refused to take food or medicine. He complained of pain in the cardiac region, with oppression and difficulty of breathing. On examination of the heart a mitral systolic murmur was heard that had not before appeared. The urine was scanty and high colored, though micturition had been frequent. The bowels were constipated, and had been during the attack. The patient was placed between blankets and ordered an aperient, some buttermilk or kumyss, mutton broth, a tepid alcohol bath, and 20 grains of salicylate of soda in lemonade every two hours for 12 hours. After that, the same amount of salicylate every third hour for 12 hours. Being seen again the next morning, it was learned that the patient had vomited but once, but complained of nausea after the medicine had been taken. He had slept during the night twice, two hours each time. The joints were free from pain except when moved. The perspiration was less abundant, the pulse 95, and the temperature 99.8° F. He had retained nourishment and said he

felt better in every way. He was ordered 15 grains of salicin every three hours for the next day, and every four hours thereafter. He made a good recovery during the next three weeks. I believe it was the salicylate that so promptly relieved the acute symptoms and in the manner above indicated.

Case II. I was called to see Mrs. H. S., 24 years old. She had been vomiting bile for several days and was suffering from dysentery. She complained of general malaise, aching in the bones, with a desire to gape and stretch constantly. She had a chilly sensation with shivering every afternoon, when she could not get warm by external heat, followed by burning heat and perspiration. During the forenoon of each day she complained of dull aching pains shifting from shoulders to ankles and wrists and knees. The pain was more severe when the weather was cloudy or rainy or damp. The joints were tender on pressure, and exercise increased the pain and tenderness. This condition, with the exception of dysentery and emesis, she had complained of for the previous three weeks, during which time she had been driving through Southern Kansas and was out of doors most of every day. She thought that she had taken cold and was using tonic doses of quinine with laxatives, but was growing worse daily. The tongue was covered with a thick creamy coat. The pulse was 100; the temperature normal in the morning, but at 6 P. M. 100° F.; the latter time when she complained the most of feeling feverish, and two hours after of chilly sensations. The urine was scanty, high colored, and loaded with urates. The heart sounds were normal. The patient was in bed. The mother had acute rheumatism before the patient was born and since, but the patient had never, to her knowledge, had an attack of the disease. I directed her to lie as quietly as possible in bed, and ordered elixir of salicylate of soda, one tablespoonful (30 grains) every two hours for the first entire day except during sleep. When seen the next day it was found that she had taken 8 doses of the salicylate (240 grains), and was free from pain in the joints, but depressed from the action of the remedy. She had suffered from the chilly sensation as the day before and was in a fever, the temperature being 101° F., a degree higher than the day before. I ordered the salicylate continued until the next morning at 7, and commenced again in the afternoon at 5. I also directed quinine in 10-grain doses to be given at 8.30 and 11.30 A. M., and 2.30 P. M. The next day the patient had no chill or fever, the dysentery was better, and she was feeling more comfortably than for several weeks. The quinine was stopped after two days' administration. Salicin was given in 20-grain doses every four hours for the first week and the same amount three times daily for a month after. The patient made a slow recovery in four weeks, but has had no recurrence of either disease. The quinine relieved the malarial symptoms which the salicylate did not. The salicylate relieved the rheumatism which the quinine did not mitigate.

Such cases of acute rheumatism, mild in form, complicated with malaria, are of frequent occurrence. The immediate beneficial effects of the salicylate are not so marked in all cases as in those cited. In the latter case I believe neither remedy would have given the patient relief, owing to the existence in her system at the same time of the schzomycete both of malaria and rheumatism. While there are analogies existing in the manifestation of the malarial and rheumatic micro-organisms, I believe they are as distinct from each other as the bacillus of anthrax and phthisis, and that while we are not able to determine absolutely the manner in which the salicylic compounds counteract rheumatism, or how quinine relieves malaria, we do know, by clinical observation and results, that their effects are highly satisfactory and remedial.

CHROMIDROSIS.

BY J. J. DALY, M. D.,
NEWARK, N. J.

Chromidrosis is a disorder of the sweat glands, in which the fluid poured forth varies in color, in some instances being yellow, black, blue, brown, or bloody. In the majority of cases the coloring is bluish or bluish black. In recent years the occurrence of a brick-dust red deposit on the skin has been reported in connection with the discoloration. The brown discoloration being the one I have met with I shall therefore confine my remarks chiefly to that variety.

The commonest situation for the occurrence of the dark discoloration is on the lower eyelids, but it may occur on any

part of the body, as the forehead, cheek, abdomen, limbs, back, and rarely on the back of the hands. Eichhorst says: "It never occurs on the back of the body," but in one of the cases I report it was the worst on the back.

There have been only a few cases of the disease reported as having occurred in men, and in some of these the scrotum was the only part affected. The disease is said, by some authorities, to be most common in women of about twenty-two years of age, and is twice as frequent in unmarried as in married women. It is often preceded by uterine disturbances, symptoms of hysteria, chloremia and anemia, and their accompanying nervous complications. It is occasionally feigned by hysterical simulators. To guard against deceptions, Spring recommends the following procedure: The spot to be examined should be carefully cleansed with oil, or, if necessary, by scraping, painted over with collodion, and allowed to remain for a few days. When chromidrosis is actually present it will show itself when the pellicle is lifted off.

The affection occurs as frequently in winter as in summer. The duration of the disease is not limited; in some cases it is said to have lasted for years, in others it has disappeared, only to return after a longer or shorter interval. It shows itself either in a small circumscribed spot or over a larger surface. Sometimes it manifests itself by a fine dust-like deposit, in others by only discoloration of the epidermis. This discoloration of the skin in most cases can only be removed by scraping.

The immediate cause of the change of color is not accurately known. By some it is thought to be due (especially the darker varieties) to the presence of indican in the sweat. Foote believes the color is due to the oxidation of hematin, but chromidrosis is looked upon as a product of the sweat glands, associated with some nervous influence.

The cases which I have knowledge of are the children of Mrs. C., of Metuchen, N. J., who has given birth to four children, and is of a very nervous temperament. The mother noticed that the first child, a girl, was very dark soon after birth; this was particularly noticeable as the child had red hair. This dark color gradually wore away after the lapse of a few months. The second child was a boy. A few weeks after birth the mother noticed a green streak about one inch wide around the upper part of the infant's neck. She supposed it was due to carelessness on the part of the nurse in washing the child. But with all the washing she could do herself, it would not change the color. This color gradually disappeared several months afterward. This child was, and still is, very nervous. Soon after birth of the third child, a girl, the mother noticed a dark spot about one and one-half inches in diameter in the palm of each of her own hands. She could not remove these spots by any amount of washing and scouring, but after a few weeks they disappeared suddenly. About this time the mother noticed that the child's feet were (as she said) dirty, and supposed the nurse had not washed the child properly, but washing did not remove the so-called dirt. Then the nails and the flesh beneath turned a dark color which gradually spread all over the body. The shirts, stockings, and all the clothing that touched the child's skin were stained about the color of a walnut stain. This coloring was darkest on the back. The child had profuse perspirations, which stained the pillow cases. The child was very poorly nourished. She is now about three years of age, and it still very nervous. The chromidrosis in this child suddenly disappeared when she was about seven months old. At times while suffering from the affection the infant's napkins would be stained red by the urine, and feces made dark spots. This stain, as well as the stain from the body on the shirts, etc., could not be removed by boiling and washing.

Fourth child is also a girl. The dark spots in this case first appeared on left leg below the knee, and on the left side of the face in spots, the largest being situated about one-half inch above and one inch external to the outer edge of the eye. The disease in this child, after spreading nearly over the entire surface of the left side of the body, disappeared in a few months. The color of the urine still remains dark and stains her clothing. This child, notwithstanding the very best of care, is very poorly nourished and nervous. At the present, no signs of the disease is manifest in the children, but the perspiration of the different children sometimes stains the pillow cases a dark color, although no discoloration of the skin can be seen.

The third and fourth child have suffered from marasmus. The mother is very thin, anemic, and of a decided neurotic disposi-

tion. No members of the mother's or father's family have ever been affected by the disease, nor have they ever known of any one else.

The treatment pursued in the above cases was such as would be calculated to build up the system, viz., cod-liver oil, tonics, peptonized milk, fresh air, etc., together with an oiling of the body all over at night and washing it with salt and alcohol the next morning.

CREMATION.

WHAT IS THOUGHT OF IT BY PHYSICIANS.

INTERVIEWS WITH PHYSICIANS BY A REPRESENTATIVE OF THE MEDICAL AND SURGICAL REPORTER.

SEVENTH SERIES.—CHICAGO.

DR. S. WICKERSHAM, the Health Commissioner of Chicago, says: It makes no difference to the dead whether they are buried in the ground, or their bodies are burned. It is an inevitable law of nature that organized matter will return to dust. As to the living, the percentage of Chicagoans that favor cremation is very small. They seem to be horrified with the idea that their individual bodies, or those of their relatives, should be disposed of in a crematory. While this subject has been before the more intelligent classes of people for many years, it does not seem to have obtained many converts. To ninety-five per cent., at least, of our people, the idea is very revolting. Now, what hygienic measures may be required when the population becomes very much larger than it is at present remains to be seen, but I do not believe that in this generation the idea will become sufficiently popularized to justify capitalists in investing their money in crematories, or that public sentiment will induce humanitarians to do so.

DR. N. SENN, of Milwaukee, Wis., says: Personally I am averse to cremation; from a sanitarian standpoint it is certainly the ideal method of disposing of the dead.

DR. HENRY M. LYMAN, of Chicago, says cremation is a good thing.

DR. JAMES NEVINS HYDE declares: In my view cremation is both proper and desirable for the bodies of the human dead. My convictions in full are those held by my friend and esteemed colleague, Dr. W. W. Keen, of Philadelphia, Pa.

DR. G. FRANK LYDSTON says: I have long been a convert to the view that cremation is the most philosophical method of disposing of the dead, both as a matter of economy of space and for the removal of what I believe to be one of the most important factors, under certain circumstances, in the propagation of disease. It is certainly unjust that the remains of the dead should be allowed in any way to disturb the comfort and health of the living. It must be acknowledged that the time is far distant when economy of space will be of as great importance in this country as in the overcrowded countries of Europe, but it has none the less already assumed sufficient importance to require serious consideration. In Chicago, for example, it is within the recollection of even the younger generation of citizens that cemeteries which have been considered to be well out of the way of the encroachments of city growth have required removal, at great expense and with many attendant offenses against esthetics. Even at the present time the space occupied by our cemeteries is so valuable that the question of removal ought to be considered very seriously. There are no objections that can be urged against cremation other than those of an esthetic character. There are many arguments in its favor. The only substitute for it is, in my opinion, the recently projected mausoleum method of disposal of the dead. This offers all the advantages of esthetics and economy of space.

DR. HENRY T. BYFORD says: I consider the transfer of burying-grounds for churchyards to outlying districts to have been a great advance in sanitary science and ethical culture, and think the day not far distant when similar advances will bring us around to cremation as the most sanitary, ethical, and satisfactory means of disposing of the dead. It is about as disgusting to think of our departed friends rotting in the ground as to know them to be devoured by carrion-eating vultures. Since nature demands the consumption of our worn-out bodies, let it be her most cleanly and complete method, viz., *fire*.

DR. ARCHIBALD CHURCH says: If it were a question of suitable and hygienic disposal of the bodies of lower animals dying from

natural causes the pre-eminent superiority of incineration would not be questioned. The only obstacle to the adoption of this method in the treatment of the human dead is purely sentimental, while every consideration of public health and cleanliness in its broadest sense is in favor of cremation. The privilege was accorded me of witnessing a cremation in Milan, and I feel sure that the most sensitive fastidiousness would not have been shocked in the least by the ceremonial, which has so much to commend it to the reason of every one. Aside from the possibility of destroying medico-legal evidence in cases of violent death, there is not a single well-founded objection to incineration; and under suitable precautions this has also but little weight. Personally I am emphatically in favor of the process of cremation as a general method in the disposal of the dead, and trust the growing sentiment in this direction may soon work a needed advance in one of the most important questions of public health.

Dr. A. E. Hoadley says: I can see no good reasons for urging cremation from a sanitary point of view; for I do not believe that pathogenic germs ever escape from the ordinary grave, and the inorganic elements as they very slowly, if at all, find their way to the atmosphere, are innocuous; or I know of no evidence to the contrary. And then, again, it does not contemplate a more speedy removal of the dead from the living. On the other hand, cremation may be urged on the ground of economy in time, space, and money, all of which are very important in the end of the nineteenth century. Sentiment in the matter amounts to nothing; for in a few years I think cremation will be the more popular method, and ultimately it will be a horrible thought to the sensitive to be buried in the cold dark grave.

Dr. Norman Bridge says: This subject has been so much discussed of late that nothing that I could say would amount to much more than a personal opinion. There are arguments in favor of and against cremation. It comforts some people to believe that they are to be cremated, that the bodies of their friends are to be cremated; to others the idea is shocking. The vast majority of people, for the next century at least, will certainly not believe in nor practice it. To them the idea of the common burial of the dead will be more comforting and more appropriate. From a sanitary standpoint, if cremation could be properly done, particularly in large cities, perhaps it would be better if it were generally practiced; yet I believe much of the talk about the harmfulness to health of people by the burial of the dead in the usual way, is pure nonsense. Certainly in small communities there can be no sanitary objection worth considering to the common practice of the burial of the dead. On the other hand, cremation is objectionable from a medico-legal standpoint, since it destroys evidence as to the mode of death. The danger of being buried alive is so slight that it is hardly an argument in favor of cremation, although some regard it as a very powerful argument in that direction.

Dr. John A. Robison says: From a sanitary view, I am in favor of cremation; from a medical standpoint, I am not, if it exhausts the supply of anatomical subjects. As to its propriety, I would not advise it until public sentiment is in its favor.

Dr. Joseph Zeisler says: For many years I have been in favor of cremation; in the first place, from a sanitarian standpoint, as it seems to me that by it we can do away with a great many of the sleeping causes of epidemic diseases, which, operating at proper times, are favorable to the development of contagious diseases. The only objection to its universal acceptation will be found to be more sentimental than practical; but when it comes more into vogue, I think this objection will fall to the ground, because it is possible to perform cremation with suitable impressive ceremonies. Speaking personally, it would be much better to think that my ashes should be in a nice vase or urn, preserved in some hall, than to think that I should rot and be eaten up by worms.

Dr. D. W. Graham says: From a purely scientific standpoint cremation has the argument; but sentimental and other reasons will determine the question for a long time to come in this country. There is no sanitary necessity for making cremation compulsory or general; and as long as there is none, it will not be extensively advocated or adopted as a substitute for burial. There might come times of contagious epidemics in certain localities, as in some of our coast cities, when the authorities should have discretionary power to enforce cremation for the public good. Hence I think the public mind should be so educated in the scientific aspects and sanitary possibilities of cremation that whenever and wherever such an emergency might arise, consideration for the

welfare of the living should govern the disposal of the dead.

Dr. Henry J. Reynolds says: Viewed from a sanitary standpoint, I think, with most medical men, that cremation is preferable to the usual method of disposing of the dead. In regard to any sentimental feeling that any person might have against it, I regard that as due entirely to custom, as when once accustomed to it, the method must certainly be attended with less obnoxious features.

Dr. Bayard Holmes says: Burial ceremonies persist among all people longer than any other. It will be very difficult to bring about so desirable a change as the cremation of the dead. Only such a dire necessity as presents itself to the inhabitants of large cities can accomplish this desirable object, and to me it seems to be the only solution of the question in the metropolitan cities. It is clean and nice, and the right way to do it.

Dr. Arthur R. Reynolds says: Those who have seen cremation have been delighted with it. They say there is less horror attending it, and less of those things which harrow up the feelings. From a sanitary point of view, it is a good thing. Personally I am in favor of it. I would as soon be cremated myself as to be disposed of in any other way, unless my friends opposed it. I would not hesitate to cremate any of my personal friends, unless they expressed a wish to the contrary before death.

Dr. L. H. Montgomery, Health Inspector of Chicago, says: Wherever germs, or the *contagium vivum*, is the prime cause of disease, incineration, or cremation, is the surest safeguard against epidemics. Hence as a sanitary measure it is superior to isolation, quarantine regulations, disinfectants, systems of sewerage, vaccination, or any other procedure that comes within the domain of sanitary surveillance. The latter methods do not invariably give us positive and infallible immunity from yellow fever, cholera, or some of the other contagious diseases. I believe a national or State law should be enacted requiring that all persons dying of yellow fever, small-pox, cholera or plague, malignant diphtheria, phthisis, especially paupers (as the potter's field, as a general thing, is a disgrace) should be incinerated. Why? Because cremation never fails to destroy the germs of disease. Personally I am not a thorough advocate of it—not wholly upon sentimental grounds, but because it seems to be looked upon by the refined, intelligent, and better classes of the community as barbaric in this enlightened Christian era.

Dr. W. E. Casselberry says: Cremation is the least objectionable of all methods of disposal of the dead, both for sanitary and other reasons. Even as a matter of sentiment, what, for instance, could be more distasteful than to suffer two large burying grounds to be located, one on each sloping bank of the Schuylkill River but four miles above the point from which Philadelphia draws her water supply.

Dr. D. A. K. Steele says: I believe in the sentiment expressed by Sir Henry Thompson in 1874, that "no dead body is ever placed in the soil, without polluting the earth, the air, and the water above and around it," hence I am a firm believer in the propriety and desirability of cremation as a general method of disposing of the dead in large cities or densely populated localities. My reasons for this opinion and belief are as follows: 1. It is an essential sanitary measure that has received the sanction of scientists and the official approval of the American Medical Association. Physicians have been its most active advocates, the first crematory in this country being erected by Dr. Le Moyne at Washington, Pa. Professor S. D. Gross, one of the most eminent surgeons of this century, emphatically and practically indorsed cremation by requesting that his body be incinerated in this crematory and his wishes were complied with. 2. It prevents the possible danger of being entombed alive. 3. It is more economical; the cost of modern funerals make it too expensive for a man to be buried. It is liable to bankrupt his estate if his relatives conform to the modern requirements of inhumation. 4. It merely anticipates the slow, repulsive disintegration of the body by nature; substituting fire, the great purifier and destroyer of infectious germs, which in a few minutes transforms the decaying organisms into a mass of innocuous ashes, instead of waiting for months for nature's slow process of the pollution of the earth, air and water by the gradual rotting of the body. 5. No violence is done to moral or religious sentiments as the last rites and ceremonies would precede incineration as they now precede entombment. 6. Concealment of criminality could be avoided by preservation of descriptive memoranda, photographs, clothing, etc. 7. In this utilitarian age the abandonment of

graves in cemeteries would be replaced by the sale of urns in vaults and the shareholders would not be impoverished.

Reports of Clinics.

HARLEM HOSPITAL, NEW YORK SURGICAL CLINIC.

DR. THOS. H. MANLEY.

Sarcoma of the Liver.

The first case presented at this clinic was a well-developed young married woman, 39 years old, brunette and of medium size. Her history, taken from the ward register, was as follows: She was a seamstress by occupation, married when fifteen years old, and had one child. She had always enjoyed good health, and never in her life was ill sufficiently to require medical aid, had an excellent appetite, and in her usual good health weighed 190 lbs. The patient had lived a regular life; never indulged in alcoholics, and had never had any kind of specific disease, or any disturbance in her menstrual functions. The first symptoms she noted in her present illness was that her waist was becoming fuller, and that her appetite was not so good. This was in March of 1889. The enlargement was observed and commented on by her friends, and she then consulted a physician, who prescribed for her dyspeptic symptoms. The remedies gave her much relief; but soon the symptoms returned, and pain was now experienced constantly in the right hypochondriac region. Although she was able to continue with her sewing, she suffered more or less, as time advanced, from the pressure this enlargement induced, until she came under the care of Dr. J. A. Hoffheimer, who sent her to Dr. Manley.

Dr. Manley said that, after making a most careful and searching examination of her case at his office, he had come to the conclusion that she was suffering from malignant disease of the liver; from that variety of cancer known as sarcoma. He would have it distinctly understood, however, that he was only speaking advisedly, for, though it seemed evident that the whole liver was involved, yet there was no jaundice, and nothing to indicate the absence of bile in the feces. Besides, the growth might not be hepatic at all; it might be of renal origin, or possibly of an ovarian variety. By a process of exclusion, however, he had concluded that the neoplasm lodged in the abdomen was confined to the liver.

A few features in the history of the case, he said, led him to regard the growth as a sarcoma. They were, first, and of preponderating importance, the clinical history—the preceding good health, and the absence of any well defined pain, until pressure was felt. Further, the character and the locality of the growth, as well as the absence of any kidney derangement, as decided by urinary analysis, led to a confirmation of this diagnosis.

Dr. Manley stated that, inasmuch as he could not say with absolute certainty what he had to deal with, his patient, being anxious, had requested that every expedient be exhausted in order that her mind might be set at rest—well aware that, if her affliction was cancer, she was doomed; and, on the other hand, if it were not, she wished it decided beyond a doubt. She was warned of the dangers attending exploratory incision, and aware that it was the only way that an absolute diagnosis could be made. She, however, clamored for a laparotomy; and hence Dr. Manley decided to open the abdomen for diagnostic purposes, and if it were found that the growth could be removed, to enucleate it through the opening made. An incision was carried obliquely downward and backward through the right linea semi-lunaris, for about six inches, when the tunics, layer by layer, covering the tumor, were divided, and separated until its capsule was reached, when it was found that the whole liver, anteriorly, was one mass of very large cancerous nodules. Everything was more or less adherent, so that in making the incision the peritoneal cavity was not opened.

The question of diagnosis having been indisputably decided, the wound was closed and dressed in the usual way.

Cancer of the Breast.

The second case for operation was a woman of forty years, who fifteen months ago had her breast excised for a scirrhus tumor in Bellevue Hospital. While the patient was being etherized, Dr. Manley said that he would call attention to a few points in this case. The first was the recurrence of the malady. This woman states that the primary growth had not been removed more than six months when pain commenced along

the seat of the scar. The incision employed at the original operation was worthy of notice. It was that kind generally in vogue at the present time, and consisted in carrying the rent made by the scalpel not only a good distance away from the neoplasm, but also opening up freely the axillary space, producing a deep, broad chasm in the hollow of this space, and exposing freely all the great vessels, large nerves, and muscles, with a view of enucleating whatever enlarged lymphatics which might be found there. On union of this incision there remained a thick, dense, cord-like cicatrix, which knotted together, by fibrous adhesions, all the structures exposed by the scalpel, leaving the patient, often, in a condition much worse than if no operation at all had been done. As in the present instance, following this extensive cicatrization there was œdema, from the fingers up the entire arm, patches of numbness, accompanied with constant neuralgic pains. Along with this the movements of the shoulder were very greatly restrained, and the limb was of little use to her.

The operation for the secondary growth was proceeded with in the usual way; and though a few enlarged lymphatics could be felt towards the axilla, Dr. Manley said that he regarded them as having increased in volume from the irritation transmitted along the absorbents, as they might be, from any focus of inflammation, regardless of its pathological character, and that he believed that the extensive mutilation, indispensable in removing deep-seated glands in cancerous affections, was practiced on deceptive reasoning; for, while we may very easily remove any number of lymphatic glands, we cannot extirpate with the knife the cancerous cachexia, of which the local affection is undoubtedly a simple manifestation.

The patient, on whom the exploratory laparotomy was done, died on the evening of the second day after operation. The autopsy revealed an infiltrating sarcoma of the liver, that organ weighing 18 lbs. The infection involved the gastro-hepatic omentum, and extended through the mesentery to the pancreas.

The patient with secondary cancer recovered.

BIRTHS IN ENGLAND.—The greatest number of births in England occur in the month of February, and the least number in June. September is the coldest month of the British year.

FOREIGN CORRESPONDENCE.

LETTER FROM PARIS.

The Influenza.—The Contagion of Phthisis between Married Persons.—New Mode of Producing Anæsthesia in Dogs.—Rectal Injections of Drugs for the Treatment of General Diseases.—A Soluble Substance secreted by the Tubercle Bacillus.—Prophylactic Measures against Tuberculosis.

PARIS, January 3, 1890.

Influenza is now prevailing in Paris in the highest degree; the disease passes through all the establishments where a large number of persons are massed together; the employés of different government offices, large dry-goods stores, large factories, etc., seem to be the easiest victims.

The disease in itself has not caused any great mortality, but there is no question about the dangerous character of its principal complications, viz., pneumonia and capillary bronchitis. These complications, luckily however, from what has been observed, only result in those cases where the patient treats himself carelessly, and takes no precautions whatever. The mortality is higher among those cases where the lungs have been previously involved, or in cardiac patients; Professor Germain Sée, at the Académie de Medicine the other day, claimed that complications were more to be feared in cases in which the bronchi were clearly involved than in those in which the lung tissue was diseased, such as in tuberculous patients. He thinks that this actual epidemic is one of special catarrhal fever. In St. Petersburg, the question has arisen whether this pneumonia was a special form of influenza-pneumonia, or an ordinary pneumonia. From the observations of Professor Sée, in his hospital wards, he is inclined to believe that the observed pneumonia is a serious form of infectious pneumonia. Five years ago, during a small epidemic which occurred in Paris, it was observed that in most of the patients there was an enlargement of the spleen, so that at that time the influenza seemed associated with malaria and typhoid fever, which diseases both produce an hypertrophic condition of the spleen. Prof. Potain, during this actual epidemic, has also directed his attention to the variability in size of the spleen, and has found an increase in size of that organ; this seems to prove the in-

fectious character of the disease; and Prof. Sée concludes that we probably have to deal with an infectious disease, non-contagious, and having nothing to do with atmospheric changes, as it has presented itself almost simultaneously in every city of Europe.

Dr. Dujardin-Beaumetz differs from Prof. Sée, and does not believe the disease is a special catarrhal fever; it is not influenza as we find it described in text-books, but it is a disease that cannot be described by one word; the remarkable point in it being its sudden onset and almost immediate appearance, which has misled certain persons to take the disease for dengue fever. The disease seems to present two periods: a nervous period and a catarrhal period. The catarrhal period alone resembles influenza. In dengue fever there are also two periods: a nervous period, and a period of physical and moral prostration. In this present disease, a rash, like in dengue fever, has also been observed. M. Leroy de Mericourt has found in his researches that in 1742, there was a disease which was then named "influence" that presented exactly the same symptoms as the present epidemic. This same article mentions the fact that epidemics of this character vary with years, climate, seasons, individualities.

He says there is no analogy between the present disease and the dengue fever, the rash observed is only temporary and has not the scarlatiniform appearance of the eruption of the dengue. The desquamation observed in this last disease is also not noticed in the present epidemic. As to the pneumonias observed, they have not the same physical signs as our ordinary pneumonias—congestion with loud murmur, delirium, trembling, and coated tongue. As to the prognosis, it is certain that lately the disease has become much more serious in character.

The treatment of the disease has been the use of antipyrine, 15 grs. to the dose, given to break up the fever as well as to combat the severe headache or pain in the back which is usually an accompanying symptom. A purgative has also been recommended at the very beginning of the trouble.

M. Leudet, at the last meeting of the Académie de Medicine, expressed his view as the result of his observation in regard to the contagion of tuberculosis between married persons. He has particularly studied what has become of the surviving person, in case of death by phthisis of either the husband or wife; and this for the twenty-five years that followed the death of one of the married persons. He has obtained results which show that out of 112 widows and widowers of certainly phthisical patients, by far the majority of them presented no suspicious symptoms of the disease, or died from a disease different from tuberculosis. As regard sex and age, his 112 cases are divided into: 79 women and 33 men; 78 from 20 to 35 years of age, and 34 from 35 to 50 and over. The duration of the disease in the patients who died was from 1 to 20 years. Out of the 112 survivors only 4 women and 3 men became phthisical; and out of these 7, 3 men and 1 woman are still alive; hence we have 105 remaining who have lived with tubercular patients, without contracting the disease. Out of these 112 couples, 80 were young, 18 have had no children, 35 have had healthy children, and 27, children that became tubercular. M. Leudet concludes that among the better classes, which live in good hygienic conditions, the contagion of phthisis is extremely rare.

At the last meeting of the Biological Society, Dr. Richet recommended an easy and rapid way of obtaining anæsthesia in animals; in dogs, for example, by the intraperitoneal injection of chloral and morphia. The anæsthetic dose employed without danger has been eight grains of chloral and $\frac{1}{25}$ grain of morphia, to every kilogramme of weight of the animal. The author has never observed any local accidents, as the solution he used was always a very weak one ($3\frac{1}{2}$ ounces of chloral, eight grains of morphia, to 32 ounces of water). It must not be forgotten, however, that the above-mentioned dose is the safe one; for an injection of only 9 grains of chloral to $\frac{1}{20}$ grain of morphia to each kilogramme of the animal will surely produce death.

For several years past, in fact since Bergeon of Lyons introduced his mode of treatment for phthisis by rectal injections of sulphurated hydrogen, the practice of using rectal injections of drugs more extensively, has become an established fact; absorption by the rectal mucous membrane being almost as rapid as by the gastric. This has been many times proven, and lately Dr. Köbner of Berlin clearly demonstrated the presence of iodine in the urine and saliva twenty minutes after a suppository of 5 grains of iodide of potassium had been placed in the rectum. If, instead of a suppository, a rectal injection of 10 grains of iodide of

potassium be given, ten minutes later the drug is found in both urine and saliva.

Injections are certainly preferable to suppositories, especially in certain local painful conditions of the rectum, in which a solid hard body, like a suppository, would produce very severe pain and therefore be almost immediately expelled before any absorption could have taken place.

Yet, in using rectal injections too often, the mucous membrane of the rectum, like that of the gastric, will become so accustomed to a certain drug, that it will no more absorb it. To prevent this, and when one desires to resort to a long treatment, every time before injecting one must administer first a simple water enema, which will act as an evacuator; then, also, to prevent the intolerance of the mucous membrane, suspend the treatment every few days. Rectal injections have been used lately in several diseases with success. Professor Ternier of Lyons has given to chloritic patients, instead of the pills or other preparation of iron, rectal injections twice a day morning and evening, of 4½ ounces of the blood of oxen, defibrinated and kept in a cool place; the blood being heated to the normal temperature of the body just before using. These injections are made every day for a week, then discontinued for a week, and then renewed again, and so on. If any pain or colic should occur, the addition of three or four drops of laudanum would relieve and prevent it.

Dr. Talichet from Roanne uses creasoted rectal enematæ, which are prepared as follows: he takes four grains of finely pulverized Tragacanth gum on which he drops, one drop after another, the creasote; he then adds water, after the mixture of gum and creasote has been sufficiently triturated, and at the moment of using he mixes the whole up in a glass of linseed water, to which he adds a few drops of laudanum. The dose of creasote is progressively increased from ten drops—the initial dose—to forty drops. These injections are given twice a day, one or two hours after a meal.

Dr. Behring also recommends the rectal injection of three drachms of an emulsion containing 7 to 15 grains of iodoform, in tuberclosis.

Dr. Rabow from Lausanne (Switzerland) claims to obtain more rapid results in cases of epileptiform convulsions, melancholia, etc., by the use of enemata containing from 10 to 30 grains of bromide of potassium than by any other means. The sedative action of the drug is much more rapid than when given by the mouth.

In cases of asthma, where patients were unable to take any more iodide of potassium by the stomach, and also in a case of exophthalmic goitre and of cranial periostitis of rheumatic origin; the aqueous rectal injection of 10 to 25 grains of iodide of potassium acted wonderfully well in the practice of Dr. Lazarus from Berlin.

Dr. Köbner, of Berlin, has principally used the rectal method to combat the accidents of celebral syphilis, when a large quantity of iodide of potassium is required, and has obtained most satisfactory results in such cases. These enematæ he used, contained 15 to 30 grains of iodide of potassium in 100 grammes of water, and was given twice a day. With this one might also employ frictions with some kind of mercurial ointment.

Rectal injections are certainly called upon to render good services, in the treatment of general disease; but one must never forget when the medication is prolonged that a period of rest is necessary to allow the rectal mucous membrane to return to its normal condition. A week's repose for every two weeks' treatment will afford a sufficient rest to the parts.

Dr. Courmont, from Lyons, presented before the Society of Biology the result of his researches on a "soluble substance, secreted by a tubercle bacillus." The author has studied a new bacillus which produces tuberculous lesions, and he has found in his culture that this bacillus secretes a soluble substance which, instead of being a preventive, on the contrary helps the evolution of the bacillus. If one injects into a guinea-pig one cubic centimetre of an old culture, that has been sterilized and filtrated, this guinea-pig will be especially apt to become infected by the bacillus, and this is proven by the fact that if to this animal a small quantity of tuberculous matter be inoculated, the animal will die sixteen times more rapidly than another who has not received the injection of the old culture beforehand. Death taking place in fifteen to sixteen hours in the guinea-pig, and twenty-three hours in the rabbit, by general infection. The filtrated culture, which produces this aptitude to tuberculous, is not toxic by itself; a very high dose might cause accidents, but they

are nothing as compared to the infection following secondary inoculation. He has never seen that any quantity of this substance, mixed to a fresh culture of bacillus, at all helped the development of the bacilli.

At the very last meeting of the Académie de Medicine the very interesting question of prophylactic measures to be taken against tuberculosis was brought up. Professor G. Sée opened the subject by speaking of the contagion by the atmosphere, but said that nothing has been proven as yet in regard to atmospheric contagion; even the last researches of Koch and Cornet were unfavorable to it. Dr. Cornet has examined the air of twenty-one dirty wards of diseased persons, and found in fifteen of them tuberculous dust; in other well kept wards he found no trace of tuberculous material. He arrived at the following conclusions, viz., that there is no ubiquity of the tubercle bacillus; that we often demonstrate the tubercular virus where one or several tubercular patients can be found, but that the bacillus is totally absent in wards where phthisical patients have not been kept long, and as the tubercle bacillus outside the human organism never multiplies itself and can only live for a limited time, the tuberculous man is the one to be considered as being the most frequent source of infection, yet it is demonstrated, on the other hand, that under no circumstances does the expired air contain any bacilli.

Where, then, does the infection reside? There are no two answers; the sputum is the real danger! The virulence of tubercular sputum is so great that a $\frac{1}{100\,000}$ dilution of it is still infectious, hence it is against sputa that all our prophylactic measures must concentrate, and for this it suffices that patients, instead of expectorating on the floor, should use small cups containing water.

The only atmospheric contagion possible would be the one derived from the dust from sputum; still, if a patient dies, it does not mean that we ought not to disinfect all that has been in contact with him.

A few words on milk. Dr. Böllinger, of Munich, has demonstrated that, when milk from a tuberculous cow has been mixed with milk derived from other cows, this milk loses all its infectious properties. Dr. Valin has stated that milk ought to be boiled and that boiling would not render it indigestible. This is an error, as it is a well-known fact that for adults as well as for children raw milk is certainly the best, at the same time, when raw the milk retains its diuretic properties, which it loses when boiled. Professor Sée has never yet seen a case of tuberculosis which could be attributed to milk. In regard to meat it has been demonstrated that Koch's bacillus was never found in the muscles.

The important question is, what shall we do in a family where tuberculosis is hereditary? Up to the present time we really all ignore the hygienic and individual conditions which will develop the disease. Predisposition is a word that only hides our ignorance, for, in a family with tubercular antecedents, we often see the very strong members of a family stricken down by the disease, while the enfeebled ones resist it wonderfully. Before heredity all we can do is to recommend good aeration, gymnastic exercises, etc.

Professor Sée finally draws the following conclusions: First, atmospheric contagion of phthisis does not exist. Second, transmission of the disease, with the exception of matrimony, takes place only by dried sputa. which alone possesses the infectious property. It is the sputum that must be destroyed. It is not the patient who is the danger, but the sputum. Third, alimentation by milk and meat is devoid of any danger. Fourth, tubercular predispositions are quite unknown in their nature and signs.

PERISCOPE.

Extirpation of Cysts and Adenomata of the Thyroid Gland.

The excellent results obtained by Mr. Charters Symonds in his treatment of these growths by extirpation, as detailed by him at a recent meeting of the Clinical Society of London, will serve to draw the attention of other surgeons to the method of treatment therein recommended. Mr. Symonds laid stress upon the following points: the median incision to be made in all cases; the capsule of the cyst to be looked for—as a rule it is at once seen if the tumor be superficial or if a part of it project beyond the margin of the gland; when the cyst is found to contain fluid all is to be evacuated and the cyst peeled out; if the tumor be solid it is to be enucleated. The capsule

must be exposed and patiently looked for. In some cases the margin of the gland must be raised up. In two of Mr. Symonds's cases the lobe was removed on the supposition that the growth was incapsuled intimately; but afterwards this was not found to be the case. All his eight cases did well, primary union resulted in every one of them; and there was no hemorrhage in the simple cases. The rapid recovery of his patients generally contrasted favorably with the much slower progress of patients treated by other methods. Thus, tapping and injecting with perchloride of iron is apt to produce hectic symptoms, and some patients thus treated have almost lost their lives. In fact, when much solid material exists in the growth injection is unsuitable. If such cases be treated by injection serious results are likely to occur. If the cyst be opened and sutured to the skin, and stuffed, the case is long under treatment, the resultant scar is large, and there is more danger than when excision is performed. Possibly a small incision and scooping out of the tissue may in some cases succeed; but it appears to be attended with much danger of hemorrhage. In one of Mr. Symonds's cases the resultant cicatrix was only an inch and a quarter long, although an adeno-cystoma, measuring 3 by 2 inches, had been removed. In this case the fluid had been first evacuated, after the manner recommended.—*British Med. Jour.*, Jan. 11, 1890.

Treatment of Intestinal Obstruction by Ether Enemata.

Dr. Clausi has successfully employed ether in two cases of intestinal obstruction in which ordinary methods of treatment had failed. He dissolved three drachms of ether in alcohol and adds about ten fluid ounces of fennel water, injecting the whole into the rectum as far as possible. A painful sensation of heat was felt all over the abdomen, and an evacuation having the odor of ether at once occurred. A little while after there were abundant evacuations of feces, accompanied by the disappearance of colic, etc.

Dr. Clausi thinks that the ether provokes peristaltic movements by irritating the terminations of the motor nerves of the intestines through the rapid distension caused by the ether vapor.—*Medical Chronicle*, Jan., 1890.

The Health of London in 1889.

Remarkable as has been the continual decline of the death-rate in England and Wales in recent years, the decrease of the rate of mortality in London, with its aggregate population of more than four millions, with constantly increasing density, is still more remarkable. The Registrar-General, in his last annual summary, reported that the death-rate in registration London in 1888 was 18.5 per 1,000, being "far the lowest death-rate as yet recorded in London," the next lowest being 19.8, 19.9, and 19.6 in the three immediately preceding years 1885–86–87, previously to which the London death-rate had never fallen below 20 per 1,000. The death-rate in 1889, moreover, again fell, and was considerably below the low rate in 1888. The Registrar-General's return for the fifty-second week of 1889, just issued, affords the means of calculating that the mean annual death-rate in London in the fifty-two weeks of last year did not exceed 17.5 per 1,000, was 1 per 1,000 below the rate in 1888.—*Lancet*, Jan. 4, 1890.

Alum Enemata in Dysentery.

Dr. Henry F. Norbury, of Plymouth, England, reports the following case in the *Lancet*, Jan. 11, 1890: A seaman, thirty-one years old, had contracted dysentery three and a half years previously, and since that time had never enjoyed his usual health. He had frequently suffered from tormina, and had from three to ten loose, offensive stools daily, accompanied by much tenesmus and by occasional passages of blood, and had gradually become feeble and emaciated. During this long period he was frequently under treatment, but with only slight benefit. He was unable to continue his duties on board ship, and had to return to England.

When first seen by Dr. Norbury, his appetite was bad, his tongue foul; he passed, amid much straining, from three to eight loose, frothy, offensive motions daily, sometimes containing blood; but, although griping pains were often very distressing, there was neither tympanites nor abdominal tenderness. He was carefully dieted, and among the drugs prescribed for a long period were compound ipecacuanha powder, aromatic sulphuric acid, decoction of hematoxylon, lead pill with opium, com-

pound kino powder, chlorodyne, sulphate of copper pill with opium, and liquor ferri pernitratis, besides enemata of opium, of nitrate of silver, and of sulphate of zinc, and suppositories of tannin. Dr. Norbury states that he derived no benefit whatever from any of the above. Lastly, an enema containing half an ounce of alum in ten ounces of water, to be administered night and morning, was prescribed. It produced slight sweating at first, but the effect in a couple of days was remarkable; the stools were reduced to one or two daily, and shortly became of natural consistence. This treatment was continued for eighteen days, when the patient expressed himself as feeling better than he had done for years; he had also gained considerably in weight and looked robust. He was kept under observation for some days after the enemata were stopped, to ascertain if there would be any return of his complaint, but as there was none he resumed his ordinary avocations.

Death Under Chloroform.

A patient, aged sixty-five, was admitted to the Queen's Hospital, Birmingham, with a tumor in the abdomen. An exploratory operation being decided on, and the patient assenting, chloroform was administered by one of the house-physicians. Before complete anæsthesia had been attained, and before any attempt had been made to commence the operation, the patient suddenly gave one or two gasping inspirations and then ceased to breathe, and the heart stopped. Every effort was made to restore him, but without avail. The heart was carefully examined the day before the administration, and was believed to be quite healthy, an opinion confirmed at the *post-mortem* examination, when no morbid condition was found in that organ. There was malignant disease of the stomach.—*British Med. Journal*, Jan. 4, 1890.

Burial Reform in England.

After a period of incubation which has been spent in educating public opinion in the matter of the hygienic iniquity of the present system of interment, the group of sanitary philanthropists with the Duke of Westminster at their head, who have taken up the ungrateful task of bringing the necessary reforms to pass, have at last decided to approach the Government with the object of having their contentions endorsed by the legislature. How far the general public will consent to allow their cherished usages in this respect to be interfered with we are unable to guess, but the object in view will certainly commend itself to those who have a thought beyond the morrow. What is required is the prohibition of leaden and other solidly constructed coffins, the effect of which is to indefinitely retard complete decomposition, and so prolong the period during which the dead are not only æsthetically objectionable, but are an indisputable source of danger to the living, wicker work or papier mâché receptables alone being used. This is after all no very startling innovation, and is not open to the sentimental and theological objections which some persons entertain to the more radical plan of cremation. It is merely a sanitary precaution of an elementary kind, and whatever the immediate fate of the movement may be it must sooner or later impose itself. The effect of legislative interference would simply be to hasten and generalize the practice among those who have too much to do in this world to find time to decide upon the material of which their coffin is to be made. We are rather inclined to agree with Sir Spencer Wells in his suggestion that in future only properly cremated remains should be admitted to funeral honors in Westminster Abbey and other national mausoleums. Not only would there result a valuable economy of space, but the very deleterious odor of decomposing sanctity, which pervades many of our sacred edifices, would be done away with.—*Medical Press and Circular*, Jan. 1, 1890.

Bismuth Mixture.

The following bismuth mixture for stomachic catarrh, painful indigestion, alcoholic catarrh of the stomach, etc., is claimed by the *British and Colonial Druggist*, for Jan., 1890, to be most efficacious:

℞ Bismuthi Carb. . . . . ℥ij
Sod. bicarb. . . . . gr. lxxx
Tinct. hydrastis. . . . . f℥ss
Tinct Nux Vomicæ . . . . . ♏xx
Syr. Ginger . . . . . f℥j
Pulv. Tragacanth. Comp. . . . . ℥j
Aquæ dest., q. s. ad. . . . . f℥viij

M. Sig. One-eighth part, undiluted, three times daily, twenty minutes before food.

Phosphorus in Diabetes.

Mr. Balmanno Squire has reported in the *London Med. Recorder*, Dec. 20, 1890, a case in which he observed that phosphorus given to a patient for eczema, notably relieved diabetes, from which he was also suffering. The patient, a man 60 years old, had for a long time been affected with eczema of the face, neck, and upper limbs. In addition to local remedies, "perles" of phosphorus were prescribed "for the improvement of the eczema." One "perle" was taken three times a day for three days, after which time the dose was doubled. Ten days later, when Mr. Squire again saw the patient, the eczema was nearly well, and, in addition to that, very sudden and marked improvement had taken place in the diabetes. The patient had previously been obliged to get up four or five times in the night to pass water, but for some nights previous to his visit to Mr. Squire he had had no occasion to do so. The amount of urine passed in the twenty-four hours had notably diminished, and its color, which had before been very pale, had become fairly natural. Thirst, which had tormented him greatly, was no longer troublesome, and he felt altogether very much better in health. Mr. Squire is not prepared with any theory to account for the beneficial effect of the phosphorus in this case beyond the somewhat oracular suggestion that, as the undue or prolonged administration of phosphorus is capable of producing fatty degeneration of the liver, this circumstance would seem to afford a clue to its marked action in controlling the diabetes. He also thinks it possible that the effect of the phosphorus may have been due to its action on the nervous system. It does not appear that there was any diminution in the amount of sugar passed in the urine.

Total Prolapse of the Uterus in a Young Nullipara.

The following case is reported from Dr. Barton C. Hirst's service in the Philadelphia Hospital:

A. S., 17 years old, gives the history that while doing housework as a servant, when only eleven years old, she attempted to lift a heavy weight, and, as she expresses it, "so strained herself that her womb began to fall down." The prolapse thus begun got gradually worse until it became complete, when the child was about fourteen. Upon close questioning, it further appeared that the girl had led the life of a prostitute from her eleventh year. She had been in the habit of replacing her womb and keeping it in place with large wads of newspaper and had thus gone about with comparative comfort. The case was treated by performing a complete anterior colporrhaphy with sunken catgut sutures and doing a posterior colporrhaphy somewhat after the manner of Emmet. Both wounds united perfectly, and the uterus appears to be firmly supported in a good position high up within the pelvic cavity. — *University Magazine*, February, 1890.

Liniment for Rheumatism.

Dr. J. D. Staples states in the *Hospital Gazette* that he has found oil of wintergreen very satisfactory, and in almost every case it gives relief when administered internally in minim doses. He has also used the oil for acute gout. His prescription for a liniment is:

℞ Oil of wintergreen . . . . . ℥ij
Olive oil . . . . . ℥iij
Soap liniment . . . . . ℥iij

M.

A very little of the liniment is used; caution the patients against using too much, and, if the rheumatism is limited to one or two joints, he recommends applying cotton-wool after its application, and then bandaging the joints.—*Chemist and Druggist*, Jan. 4, 1890.

The Prevention of Lead Poisoning.

The water committee of the Sheffield Town Council, England, upon whom devolves the urgent duty of taking immediate steps to prevent lead contamination of the drinking water, has under consideration a report prepared by Mr. Eaton. The processes for preventing access of lead to the stomach through the medium of drinking water may be divided into three groups, namely: (1) processes for preventing the water from dissolving lead; as an example of such treatment, we may mention the addition of lime to the water, whereby free acids are neutralized, and their solvent action upon lead avoided; (2) processes for avoiding contact

of the water with lead, for example, by using slate cisterns, galvanized iron cisterns and glass-lined or tin-lined pipes; and (3) processes for removing lead from the water after it has been dissolved thereby, as examples of which filtration through compressed carbon, sand, etc., may be instanced. It appears that the Sheffield water contains free acid. Clearly it is more satisfactory to strike the evil at its root by treating the water before it gains access to the poisonous metal in such a way as to prevent it from being contaminated thereby, than to trust to measures for preventing contact with the metal, or for removing it after it has been dissolved in the water.—*British Med. Journ.*, Jan. 11, 1890.

Bacteriology of Granular Lids.

Dr. Wittram, of Dorpat, has examined a number of cases of trachoma or granular lids occurring in the Riga Hospital from a bacteriological point of view, with the object of deciding whether the cocci which are found in this affection are or are not the cause of it. He examined thirty-six chronic and three acute cases bacteriologically, employing as nutritive media meat peptone, agar-agar, and coagulated blood serum. With the cocci thus cultivated from the contents of the follicles and secretion of the conjunctiva eight inoculations were performed on healthy human conjunctivæ, but in no case did a granular condition result. Indeed, Dr. Wittram's results tend to throw doubt on the theory that these microbes have a definite pathogenic relation to the disease in question.—*Lancet*, Jan. 11, 1890.

Diuretin, a New Diuretic.

The diuretic action of caffeine being open to the objection that it may be accompanied by sleeplessness and restlessness, it has occurred to Dr. Gram, of Copenhagen, to employ a sodio-salicylic compound of theobromine, to which he has given the name of "diuretin." Notwithstanding the strong resemblances between theobromine and caffeine, diuretin is alleged to produce strong diuretic action without in any way affecting the central nervous system, and to give satisfactory diuresis in cases of renal and cardiac dropsy in which digitalis and strophanthus have been inoperative. It is described as occurring as a white powder, containing 50 per cent. of theobromine, which dissolves in less than half its weight of water with the aid of heat, and remains in solution after the liquid had cooled. Six grammes have been given daily in drachm doses.—*Lancet*, Jan. 4, 1890.

Quinsy.

For the prompt dispersal of threatened quinsy apply with a brush the following solution three times a day:

℞	Tannini	gr. xv
	Tinct. iodii	gtt. iij
	Acid. carbolici	ʒ ss
	Glycerini	f ʒ v
	Aquæ	f ʒ ijss

—*Chemist and Druggist*, Jan. 4, 1890.

Idiosyncrasy Regarding Tannin.

Dr. Lange, of Copenhagen, mentions a case in which a patient presented a rare idiosyncrasy regarding tannin locally applied. He was a gentleman about thirty years of age, who was suffering from catarrh of the nose and pharynx, examination revealing nothing but a reddened and injected condition of the mucous membrane. The pharynx was swabbed out with a solution of tannin of the strength of 1 in 15. Immediately afterwards the mucous membrane became greatly swollen, the nostrils entirely occluded, an irritating watery fluid being secreted. The uvula and soft palate were found to have become œdematous, the former lying on the dorsum of the tongue. Ice was given to suck and cold compresses were applied. About an hour later, the patient complained of a certain degree of stupor and of a distressing general itching affecting the whole of the surface of the body, which presented the appearance of general urticaria. The next day this had disappeared and the swelling of the nasal and pharyngeal mucous membrane had greatly diminished. The patient then mentioned that twice before he had suffered from almost exactly the same symptoms after being treated with tannin—once in the form of a powder and once in that of solution. On one occasion he had been seized with severe lassitude and prostration, his "brain feeling quite empty," and he had noticed that his urine was quite dark on both occasions.—*Lancet*, Jan. 11, 1890.

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CHLORALAMIDE AND SOMNAL.

The inducement of sleep, free from all unpleasant symptoms, is a problem which the science of therapeutics has as yet by no means satisfactorily solved. In spite of the long list of hypnotics and narcotics that are already known, we are forced to confess that we know none which entirely fills the principal requirements: viz., rapidity and certainty of action, and absence of any untoward effects.

Of the two latest additions to the ranks of hypnotics—chloralamide and somnal—much has been already written and said, and paragraphs devoted to their praise have appeared in the majority of medical journals, yet, accurate reports, based on extensive clinical experience, have been wanting. Chloralamide has, indeed, been largely conceded to be both efficient and harmless, and somnal has been characterized by some German writers as the "long looked-for ideal hypnotic." It seems unfortunate that these drugs, which, only a short time since, were ushered into the practice of medicine with so much *éclat*, and which gave apparent promises of so brilliant a future, should be doomed to an ephemeral existence, now that the glamor of occasional success is fading away under the light of clinical tests and scientific research.

Chloralamide is a small white crystal, soluble, and, although slightly bitter, of a not very unpleasant taste. Somnal, or more correctly "etherial chloral-urethane," is a colorless, watery liquid, with spirituous odor and a biting, bitter taste. The literature of both of these drugs is but fragmentary and therefore easily reviewed, being confined almost exclusively to their birthplace, Germany. Dr. P. Guttmann states that he has found somnal useful "in most cases" of agrypnia. Dr. Krafft-Ebing, of the Charité Hospital, in Berlin, claims to have used it "with good results." Concerning chloralamide, observers have almost universally conceded that the drug is not a narcotic, but a hypnotic; that it exerts no accompanying effect on either the heart or respiration. Drs. Hagen and Hüflèr, however, claimed to have observed a case of collapse following its use. Dr. Kny, of Strasburg, prefers it to sulphonal and claims that it produces deep sleep, and has but very little influence upon the heart's action. Dr. Lettow, of Vienna, speaks of it as a very useful drug but as not always certain in its action. Its influence upon the alimentary tract has been variously reported; some writers claiming to have observed little or no digestive disturbances following its use, while others report marked symptoms of such a character.

A most extensive and careful series of clinical experiments have recently been concluded in the city hospital of Friedrichshain, Germany. These were conducted by

Dr. Adolph Robinson, one of the staff of the hospital, under the guidance of Professor Fürbringer, of Berlin, and are reported in detail in the *Deutsche Medicinische Wochenschrift*, Dec. 5, 1889. The results obtained are so conclusive as to admit of but little further argument on the subject. One hundred and twenty tests with these drugs were made on fifty different patients. In every case both drugs were tested. The medicine was always given in solution, with a little extract of liquorice to disguise the taste. The diseases, accompanied with insomnia, in which the drugs were tested, included delirium tremens, cardiac degeneration and valvular insufficiencies, typhoid fever, articular rheumatism both acute and chronic, cancer of the stomach, nephritis, pleuritis, stricture of the œsophagus, secondary syphilis, dementia, and lead-poisoning.

The results obtained were as follows: in fifteen instances somnal acted well, in thirteen tolerably well, and in twenty-two cases it failed signally. Chloralamide gave good results in thirteen instances, tolerably good results in fourteen, and failed in twenty-three. These figures show that somnal proved itself worthless in 44 per cent. of the tests, and that chloralamide failed to exert any hypnotic action in 46 per cent. of the cases in which it was used. If now we compare the action of the drugs in relation to the character of the insomnia, still poorer results will be obtained. Among the cases in which insomnia was caused by pain, somnal gave satisfactory results in only 15 per cent., and chloralamide in only 10 per cent., while in the cases unaccompanied by pain, the hypnotic action of somnal was observed in 55.6 per cent., and of chloralamide in 33.3 per cent. This proves clearly that both drugs are merely hypnotics, not narcotics.

The two principal postulates demanded of hypnotics—safety and promptness—are by no means fulfilled by chloralamide, and only partially so by somnal.

Chloralamide has been claimed to exert no harmful effect upon the circulation; but the experiments at the Friedrichshain Hospital have proved exactly the contrary, and accompanying effects, both upon the heart and circulation, were repeatedly observed. In some cases, after the use of chloralamide, the quickening and weakening of the pulse were so marked and so great that a most active stimulative treatment had to be resorted to at once. These alarming symptoms followed the administration of 30 grains of the drug. The doses employed in most cases ranged from 15 to 30 grains.

The results obtained by somnal were far more favorable in this respect. Thirty-minim doses only lowered the pulse slightly, but it still remained full and strong, and the patients awoke after a somewhat broken sleep, without any unpleasant symptoms. Larger doses gave poorer results, the sleep being intermittent and restless. Deep sleep was not produced by either remedy.

Regarding the effects of the drugs on the alimentary tract, most unpleasant symptoms were frequently noted. Nausea was produced by somnal in fourteen cases, and by chloralamide in nine cases. Vomiting followed the administration of somnal in several cases, and always occurred without warning within an hour after its administration. In two instances vomiting was excessive. In the rest of the cases in which somnal was employed more or less nausea and pain in the stomach was complained of for twenty-four hours. Its repeated use for several consecutive days gave rise to loss of appetite and malaise.

Chloralamide in 30-grain doses did not produce any vomiting, although several patients complained of painful sensations in the region of the stomach the day after taking it. Still, relatively speaking, even after a continued use of the drug, but slight digestive disturbances were produced. Other symptoms, such as dizziness, lassitude, and headache, were observed in the morning following its use, in varying degrees of intensity. In sixteen instances a period of excite-

ment was observed to follow the use of chloralamide.

In cases of delirium, even when as much as 1½ fluid drachms of somnal were given, within twelve hours, little or no hypnotic action was obtained, and this preparation can, therefore, be positively regarded as entirely worthless in these conditions. In kindred cases 60 grains of chloralamide, given in two 30-grain doses, two hours apart, gave good results in five out of eight instances. Under such circumstances it may be said that the action of chloralamide is as prompt as that of chloral hydrate.

In summarizing the practical value of the two preparations the following is evident:

The *hypnotic action* of either is uncertain; but it may be regarded as positive in 30 per cent. of the cases in which somnal, and 26 per cent. in which chloralamide is employed.

Of *accompanying symptoms*, any effect on the heart's action is almost absent in somnal, whilst chloralamide, especially under certain circumstances; is liable to produce very grave symptoms in this respect. Unpleasant effects upon the alimentary tract are observed to follow both drugs with comparative frequency. The general condition of the patient is also frequently more or less impaired.

The *taste* of somnal is unpleasant, but not nauseating, that of chloralamide is but slightly unpleasant. The *price* of either drug is but small.

THE EXCITING CAUSE OF TETANUS.

The nature of tetanus and its cause have been of great interest to pathologists for many years. The experiments of Carle and Rattone, in 1884, helped to clear up the mystery surrounding the disease. These observers were able to demonstrate that tetanus is an infectious and transmissible disease. In the following year Nicolaier found that there were bacilli in the superficial layers of the earth which, when inoculated in rabbits and guinea-pigs, were capable of producing the typical symptoms of tetanus, followed by fatal result. Soon after this, in 1886, Rosenbach showed that the bacilli of Nicolaier were also present in tetanus occurring in human beings. As, however, some other observers failed to find them in the pus of patients with tetanus, and in animals the subject of experiment, these bacilli could not be regarded with certainty as the exciting cause of tetanus, especially since up to that time no one had succeeded in isolating the bacillus in pure cultures and in producing artificial tetanus by inoculation. Dr. Kitasato found the subject in this condition, and he appears to have accomplished what previous investigators in this field had failed to do.

The paper containing the results of his experiments was read before the last Congress of the German Surgical Society, and is published in full in the *Archiv für klinische Chirurgie*, Volume thirty-nine, Part two. Kitasato asserts that the bacilli of tetanus can be isolated with certainty if the proper method is pursued. This consists in heating on a water bath, for a half-hour or hour, at a temperature of 176° Fahr., mixed (or impure) cultures which have previously been in an incubator for a few days; after being heated the cultures are transferred to closed vessels into which hydrogen is introduced. The whole culture is then maintained at a temperature of from 64° to 68° Fahr. In about a week the colonies began to form.

The bacilli of tetanus, as observed in the pure cultures, possess certain noteworthy characteristics. In the first place, they grow only where air is excluded. They can be cultivated upon weak alkaline agar-agar, and upon gelatine, and grow more rapidly in these media if from one-half to two per cent. of cane sugar is added to them. They give to the cultures an extremely offensive odor. They thrive best at a temperature of 97° to 100.5° F. The bacilli form spores, when at the temperature named, in thirty-six hours. The spores are round, thicker than the

bacilli, and are found at the end of bacillus, so that the latter presents the bristle-like aspect described by Nicolaier. They are capable of pretty strong resistance to heat, are still capable of life after being heated for an hour at a temperature of 176° Fahr. in a moist condition; on the other hand, if kept for five minutes at a temperature of 212° Fahr., in a steam apparatus, they are destroyed. The bacilli also exhibit a good deal of resistance to germicides. The most effective of the latter appears to be corrosive sublimate, in a solution of one part to one thousand of water, with one-half per cent. hydrochloric acid. In this solution the bacilli lose their virulence after half an hour.

Cultures containing spores which have been dried on silk threads and then kept some days in an exsiccator over sulphuric acid, and then in ordinary air, are still virulent after the lapse of several months; spores mixed with sterilized earth are likewise virulent for a long time.

The bacilli of tetanus have a decided, but slight, peculiar, lively movement, which is increased when they are kept warm; when spores are present, however, the bacilli are immovable. As regards staining, they take the aniline dyes, and also Gram's stain.

The specific character of these bacilli is shown by the fact that when mice are inoculated by the point of a platinum wire previously dipped in a fine culture, they become affected with typical tetanus without exception in twenty-four hours, and die after two or three days. Rats, guinea-pigs, and rabbits can also be infected if a somewhat larger quantity of the culture, according to the size of the animals, is employed.

Kitasato concludes, as the result of his experiments, that the presence of such foreign bodies as cotton, splinters of wood, etc., which formerly were thought to be necessary to obtain a successful result in inoculation, are not needed, the bacilli of tetanus being sufficient. It is disappointing, however, to read his frank admission that the most careful search, in the case of animals dying of tetanus from inoculation, failed to find either spores or bacilli at the point of inoculation or in any of the organs. Moreover, he was unable to produce tetanus in other animals with the organs of an animal dying of tetanus, nor could he succeed in cultivating the bacilli from them. The explanation of this failure may be, as Kitasato suggests, that the bacilli very quickly disappear in the animal's body; but until this is proved there will be ground to dispute the specific character of Nicolaier's bacillus of tetanus. The whole tone of Kitasato's paper, however, is that of the true scientific investigator: he states what he has found and wherein he has failed briefly and with no attempt at evasion or concealment. We sincerely hope that he will continue his investigations until the relation of Nicolaier's bacillus to tetanus, and also that of the chemical poison discovered by Brieger, will become perfectly free from all obscurity.

NON-RETENTION OF URINE IN YOUNG GIRLS AND WOMEN.

No disease is more annoying or more depressing to a patient than a disease of the bladder which calls for an almost constant evacuation of that organ. Frequent micturition is usually due to cystitis, or urethritis, or to the presence of a tumor or foreign body in the bladder, but at times it is due to indifferent causes. After a time in certain cases the walls of the bladder contract, owing to hypertrophy of the muscular layer, and the capacity of the bladder is reduced to one or two ounces. Such patients are obliged to urinate every few minutes during the day, and at night when asleep the urine dribbles almost continually.

Dr. H. Marion Sims, in a contribution to the *Amer. Journal Obstet.*, Sept., 1889, advocates the systematic use of injections of warm water to dilate the bladder and increase its capacity, for the alleviation and cure of this distressing condition; and re-

ports a number of cures effected by the method. The apparatus used by Dr. Sims is a silver catheter attached by means of a rubber tube to a Davidson's syringe. He injects water, comfortably warm, to the bladder, by means of this apparatus until the bladder is distended. This is indicated by the sensations of the patient. The process is quite painful, and, sometimes, to the patient, "unbearable," and requires patience on the part of the physician and bravery on the part of the patient to bring about good results. The injections are practiced daily for one, three or more months, until the bladder will hold about a pint of water, and then not so frequently. Improvement in the patient's condition and ability to retain urine usually keeps pace with the dilatation. The water injected should not be allowed to remain, but should be drawn off at the conclusion of each treatment.

This method of treatment appears logical, and the results in the hands of Dr. Sims have been quite brilliant, as many of the cases had been the rounds of physicians and had been subjected to many methods of treatment. Apparently the only danger inherent in the method is the risk of rupturing the bladder, which could only occur under exceptional conditions of the walls of that organ, or when undue violence was used in giving the injection. Dr. Sims is to be congratulated for having perfected a successful method of treating a distressing class of cases.

Notes and Comments.

Tenth International Medical Congress at Berlin.

We are in receipt of a formal invitation from the General Committee of Organization of the Tenth International Medical Congress, together with the following announcement:

Regulations and Programme. — I. The Tenth International Medical Congress will be opened in Berlin on Monday, August 4, 1890, and will be closed on Saturday, August 9.

II. The Congress shall consist of legally qualified medical men who have inscribed themselves as members, and have paid for their card of membership. Other men of science who interest themselves in the work of the Congress, may be admitted as extraordinary members.

Those who take part in the Congress shall pay a subscription of 20 marks ($5) on being enrolled as members. For this sum they shall receive a copy of the Transactions, as soon as they appear. The enrolment shall take place at the beginning of the Congress. Gentlemen may, however, be enrolled as members by sending the amount of the subscription to the treasurer[1]) with their name, professional status and residence appended.

III. The object of the Congress is an exclusively scientific one.

IV. The work of the Congress will be discharged by eighteen different sections. The members shall declare upon enrolment to which section or sections they intend more particularly to attach themselves.

V. The Committee of Organization shall, at the opening sitting of the Congress, suggest the election of a definite committee (or bureau) which shall consist of a president, three vice-presidents, and of a number —as yet undetermined—of honorary presidents and secretaries.

At the first meeting of each section a president and certain number of hon. presidents shall be elected; these latter shall conduct the business of the sections in turn with the presidents.

On account of the different languages employed, a suitable number of secretaries shall be chosen from among the foreign members. The duties of the foreign secretaries shall be confined to the sittings of the Congress.

After the termination of the Congress the editing of the Transactions shall be carried out by a committee specially appointed for this purpose.

VI. The Congress will assemble daily, either for a general meeting or for the labors of the different sections.

The general meetings will be held between 11 and 2 o'clock. Three such meetings will take place.

The time for the sittings of the various

[1] Treasurer's address: Dr. M. Bartels, Berlin SW., Leipzieger-strasse 75.—Please to enclose a visiting-card.

sections will be fixed by the special committee of each section, it being understood, however, that no such sittings are to take place during the hours allotted to the general meetings.

Joint sittings of two or more sections may be held, provided that the bureau of the Congress can offer suitable rooms for such sittings.

VII. The general meetings shall be devoted to :

1. Transactions connected with the work and general management of the Congress.

2. Speeches and communications of general interest.

VIII. Addresses in the general sittings, as well as in any extraordinary meetings which may be determined upon can only be given by those who have been specially requested by the Committee of Organization.

Proposals relative to the future management of the Congress must be announced to the Committee of Organization before July 1, 1890. The Committee shall decide whether these proposals are suitable to be introduced for discussion.

IX. In the sittings of the sections, questions and problems will be discussed, which have been agreed upon by the special Committees of Organization. The communications of those appointed by the committee to report on a subject, shall form the basis of discussion. As far as time allows, other communications or proposals, proceeding from members and sanctioned by the Committee of Organization may also be introduced for discussion. The Bureau of each section decides as to the acceptance of such offered communications, and as to the order in which they shall come before the meeting, always provided that this point has not been already determined in the sitting itself by a decree of the section.

Scientific questions shall not be put to the vote.

X. Introductory addresses in the sections must, as a rule, not exceed twenty minutes in length. In the discussions no more than ten minutes are allowed to each speaker.

XI. All addresses and papers in the general and sectional meetings must be handed over to the secretaries, in writing, before the end of the sitting. The Editorial Committee shall decide whether—and to what extent—these written contributions shall be included in the printed Transactions of the Congress. The members who have taken part in the discussions, will be requested to hand over to the secretaries, before the end of the day, in writing, the substance of their remarks.

XII. The official languages of all the sittings shall be German, English, and French. The regulations, the programme and the agenda for the day will be printed in all three languages.

It will, however, be allowable to make use of other languages than the above for brief remarks, always provided that one of the members present is ready to translate the gist of such remarks into one of the official languages.

XIII. The acting president shall conduct the business of each meeting according to the parliamentary rules generally accepted in deliberative assemblies.

XIV. Medical students, and other persons, ladies and gentlemen, who are not physicians, but who take a special interest in the work of a particular sitting, may be invited by the president or be allowed to attend the sitting by special permission.

XV. Communications or inquiries regarding the business of separate sections, must be addressed to the managing members thereof. All other communications and inquiries must be directed to the General Secretary, Dr. Lassar, Berlin NW., 19 Karlstrasse.

The managing members of the committees on organization of the special sections are as follows :

Anatomy, Hertwig, Berlin W., Maassen Strasse 34; *Physiology and Physiological Chemistry*, du Bois-Reymond, Berlin W., Nene Wilhelm Strasse, 15; *General Pathology and Pathological Anatomy*, Virchow, Berlin W., Schelling Strasse, 10; *Pharmacology*, Liebreich, Berlin N. W., Dorotheen Strasse, 34 a; *Internal Medicine*, Leyden, Berlin W., Thiergarten Strasse, 14; *Diseases of Children*, Henoch, Berlin W., Bellevue Strasse, 8; *Surgery*, V. Bergmann, Berlin N. W., Alexander Ufer, 1; *Obstetrics and Gynecology*, Martin, Berlin N. W., Molkte Strasse, 2; *Neurology and Psychiatry*, Laehr, Berlin-Zehlendorf; *Ophthalmotology*, Schweigger, Berlin N. W., Roon Strasse, 6; *Otology*, Lucas, Berlin W., Lützowplatz, 9; *Laryngology and Rhinology*, B. Fränkel, Berlin N. W., Neustadtische Kirch Strasse, 12; *Dermatology and Syphiligraphy*, Lassar, Berlin, N. W., Carl Strasse, 19; *Diseases of the Teeth*, Bush, Berlin, N. W., Alexander Ufor, 6; *Hygiene*, Pistor, Berlin W.,

v. d. Heyd Strasse, 13; *Medical Geography and Climatology*, A. Hirsch, Berlin W., Potsdamer Strasse, 113; *State Medicine*, Liman, Berlin S. W., Königgrätzer Strasse, 46 a; *Military Hygiene*, Krocker, Berlin W., Madgeburger Platz, 3.

Substitute for Gum Acacia.

The high price of gum acacia has led Trojanowsky, an Austrian chemist, to seek for a substitute, and this he believes may be found in the mucilage of flaxseed. By boiling the seed with water and precipitating the strained decoction with twice its volume of alcohol, he obtained a substance which, after drying, consisted of opaque, yellowish-brown irregular fragments, somewhat brittle, but not easily reduced to powder, dissolving in water to a turbid mucilaginous solution; of this, five grains were sufficient to emulsionize an ounce of cod-liver oil. The large quantity of alcohol, however, required for the precipitation, and the difficulty of drying the adhesive product being such serious objections, further experiments were made, and, by still employing flaxseed as the source of the mucilage, and treating with sulphuric acid, a gum more closely resembling acacia was obtained. His method is to boil one part of flaxseed with eight of dilute sulphuric acid and eight parts of water, until the mixture, which at first thickens, becomes quite fluid; this is then strained through muslin, and to the strained fluid is added four times its volume of strong alcohol, the precipitate being collected on a filter, washed with alcohol, and dried. The gum is in the form of translucent, grayish-brown, brittle fragments, easily pulverized, and without odor or taste, and thirty grains will emulsionize an ounce of cod-liver oil.—*Science*, Jan. 17, 1890.

The Electrical Phenomena of the Human Heart.

A special meeting of the Berlin Physiological Society was called by Professor Dubois-Reymond on December 27, 1889, in order to see a demonstration by Dr. Augustus Waller on man and uninjured animals of the electromotive action accompanying the beat of the heart. Besides the ordinary members of the Society, the leading physicists of Berlin were invited, and Professors Helmholtz and Kundt witnessed the experiments. Dr. Waller employed the capillary electrometer magnified 1,250 times, and thrown on a ground-glass screen in one of the lecture rooms of the Physiological Institute, and demonstrated the electromotive action of the heart on a horse and on a dog. The horse stood in a courtyard near the lecture room; electrodes were attached to his extremities by firm bands, and the wires from the electrodes were passed through the window to the electrometer in the preparation room adjoining the lecture room. The dog stood in the lecture room. In the library of the Institute Professor Dubois-Reymond allowed the demonstration to be made on himself so that the pulsations might be seen directly through the microscope by all the members present.—*British Med. Journal*, Jan 11, 1890.

Phenyl-Urethan.

A new antipyretic, called phenyl-urethan, has been discovered by Giacomini, of Turin. Its dose is about half that of antipyrin, viz., seven or eight grains, and it is claimed to be both trustworthy and efficacious.

Anthrax in a Woman.

At the meeting of the Sheffield Medico-Chirurgical Society, held Dec. 17, and reported in the *Medical Press and Circular*, Jan. 8, 1890, Mr. Benson read notes of a case of anthrax in a woman 50 years old, who was employed in sorting horse-hair tails imported from Siberia. When first seen by him, there was a dark-brown spot on the chin of the size of half a-crown, in the centre of a mass of hard, browny, inflamed tissue, covered with small vesicles containing serous fluid. The inflammation extended beneath the chin, and the neighboring lymphatics were enlarged. It had began three days previously as a small pustule on the chin. There was much prostration, and pain of a burning character, interfering with sleep, the pulse was 120 and the temperature 100°. Two days after Mr. Benson first saw the patient he found it necessary to make a large crucial incision through the mass, which bled freely and afforded great relief. The case was then progressing favorably, the slough separating and showing a healthy granulating surface beneath, the patient having so far recovered her strength as to be able to sit up.

NEWS.

—The deaths in Paris for the week ending Jan. 23, were 585 less than the week before.

—Dr. George M. Wells, Chief Resident Physician of the Philadelphia Hospital, has resigned.

—The estate of Dr. Farnham has given $10,000 to the library fund of the New York Academy of Medicine.

—The City of Atlanta, Ga., has voted to appropriate the sum of $30,000 to establish the Henry A. Grady Hospital.

—Dr. Benjamin Harding Turner, formerly of Philadelphia, died at Haddonfield on Jan. 24, in his 61st year.

—The *St. Louis Polyclinic* has changed its name to the *St. Louis Courier of Medicine*, and has more than doubled its number of reading pages.

—A bill has been introduced in the New Jersey Legislature providing that all poisons sold should not only be duly labelled, but also name the antidote for said poison.

—Dr. Charles B. Goldsborough, surgeon in charge of the United States Marine Hospital, New Orleans, died January 6. Dr. Goldsborough entered the service in 1876.

—A home for aged colored people will be erected by the colored people of Camden and Gloucester Counties, at Woodbury, Gloucester County, N. J., during the present year.

—During a street fight in Sabatha, Kansas, a participant was bitten on one of his fingers by a stranger. The man bitten died on Jan. 25, "exhibiting every symptom of hydrophobia."

—Dr. Abbott, of the Smithsonian Institution at Washington, returned to Zanzibar, from his exploring expedition to Masailland, on Jan. 26. He left his companion, Mr. Carroll, on Mount Kilimanjaro.

—Drs. T. S. Powell and R. C. Ward have sold their interest in the *Southern Medical Record* to Dr. Dan. H. Howell, of Atlanta, Ga. The new Editorial Staff will consist of Drs. A. W. Griggs, Wm. P. Nicolson and Frank O. Stockton.

—Dr. Thomas J. W. Burgess, formerly of the London Asylum for the Insane, has been invited to become the medical superintendent of the New Protestant Hospital for the Insane at Montreal. Dr. Burgess has had a large experience in several of the leading asylums of Ontario.

—Dr. Anton von Troeltsch, of Wurtzburg, the well-known otologist, died on January 11. His text-book on aural surgery is a standard work on the subject and has gone through several editions in Germany, and there have also been at least three editions of its English translation.

—At the annual meeting of the Directors of the Wilkesbarre Hospital, Pennsylvania, held on January 6, it was stated that the endowment fund now amounts to $10,744.77. The balance in treasury at the end of the year was $4,344.73, a gain of nearly three thousand dollars over that of the year previous.

—Dr. Charles Macmillan, Medical Referee of the Pension Bureau, died at his home, in Washington, D. C., Jan. 9. Dr. Macmillan was born in Livingston County, New York. He served as surgeon on the staff of General U. S. Grant, during the war of the Rebellion, and was later made American Consul at Rome.

—It is reported that an epidemic of so-called black-tongue fever has appeared near Morgantown, W. Va. Four members of one family are said to have died from it, and much alarm prevails in the neighborhood. There was an epidemic of what was called black-tongue fever in some parts of the country in the winter of 1842–43. It is generally supposed to be a malignant form of typhoid fever.

—It is reported that there were six cases of genuine typhus fever among the steerage passengers of the ocean steamer *Westernland.* The immigrants have dispersed to various parts of the country; but the New York State Board of Health obtained their destinations from the Castle Garden records, and Health Office Ashmun was notified later that several of the immigrants had settled in Cleveland, Ohio. A diligent search will be instituted to learn whether any of the typhus afflicted patients arrived there.

—The doctors who attended the late King of Portugal during the last few weeks of his illness, presented bills for their services amounting to nearly $100,000. One of them demanded $14,000 for ten visits, another demanded $17,000 for fifteen, while a third thought that $30,000 was not too much to ask for his attendance at eighteen consultations. Eventually, the new King succeeded in effecting a settlement of their claims by means of a lump sum of $60,000. The present infant King has a staff of nine physicians to look after his health.

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CLINICAL LECTURES.

CONGENITAL SYPHILIS.[1]

BY LOUIS STARR, M. D.,

CLINICAL PROFESSOR OF DISEASES OF CHILDREN, HOSPITAL OF THE UNIVERSITY OF PA; ATTENDING PHYSICIAN TO THE CHILDREN'S HOSPITAL, ETC.

Gentlemen: Inherited syphilis, as we see it in infants, gives us a combination of the secondary and tertiary manifestations so well known in adults, the primary lesion being absent.

The disease may show itself at three different periods of the child's existence, viz., before birth, at birth, or some time after birth. If in the first period it usually develops between the fifth and the seventh months of intra-uterine life and causes the death of the fetus and miscarriage. Indeed, syphilis is so common a cause of the latter accident that when a woman repeatedly aborts, syphilis should always be suspected, and inquiries into the previous health of the parents be made and proper measures be adopted to save succeeding children.

When the disease is developed at birth, the symptoms are generally severe. The child, while alive, is greatly emaciated, and has sniffles and a hoarse cry. A few hours after entering the world an eruption of pemphigus appears on the palms of the hands and soles of the feet. The bullæ of this eruption, at first transparent, soon become filled with a semi-purulent matter and then burst, leaving angry looking sores. These cases may linger a few days, but almost uniformly die soon; and an autopsy reveals inflammatory spots with abscesses scattered throughout the thymus gland and lungs, and induration of the liver.

In the third group of cases the infant is often apparently healthy at birth, being

[1] Delivered at the University Hospital.

strong and plump and without noticeable symptoms of latent disease. Again, though stout and strong, an old-looking face, an inelastic, dull, and pale skin and obstinate night wakefulness, may give warning of approaching trouble. After a time, varying from two weeks to seven months, obvious syphilitic symptoms begin to be observed, the outbreak being often determined by some exanthematous attack, which leaves a specific rash in its place.

With this brief introduction let me present a case to you. The patient, a little girl aged two years, may be classed in the third group just described. She is a third child, the two elders having been "born dead." You see that she is emaciated, that her skin is pale, muddy-looking and inelastic, and that the tissues generally are flabby. The forehead is prominent; the margins of the sutures are distinct and elevated and the anterior fontanelle has evidently closed late, for although now thoroughly ossified, one can distinctly map out its position by the depression in the bones of the skull. There is a thin acrid discharge from the nostrils which has excoriated the upper lip, there are several linear cicatrices at either angle of the mouth and her voice is husky. As it is an important point in the diagnosis, observe that all of the temporary teeth have been cut. On the middle finger of the right hand there is a condition of local suppuration, threatening the loss of the nail; on the right side of the chest you see several ecthymatous pustules surrounded by a characteristic purplish margin; in the neighborhood of the gentalia and on the buttocks you notice a number of the same pustules, and on either side of the clitoris a linear mucous-patch.

This is a good picture of inherited syphilis as you will usually meet with it, but let us consider the symptoms in greater detail. The earliest sign of the disease is snuffling. Little importance may be attached to this in the beginning, indeed it is rarely mentioned without direct questioning, and then only as "a cold" which seemed to last longer than usual. But as time goes on the mucous membrane of the nose swells and then the infant begins to breathe through the mouth, and has great difficulty in sucking. In this act he will snore and often drop the nipple to rest and get a supply of air through the mouth. Soon a watery or blood-tinged discharge runs from the nostrils, reddening and cracking the upper lip and angles of the nostrils. This, at first slight, becomes abundant and then consistent, blocking up the nares with crusts. This discharge is due to mucous patches on the Schneiderian membrane.

In severe cases ulceration occurs within the nose, which may perforate the septum nasi, or lay bare the nasal bones and lead to necrosis and flattening of the bridge of the nose—a diagnostic symptom.

Soon after coryza, skin eruptions appear. Flattened, slightly elevated spots, of iron-rust color, and often covered by minute scales, appear about the arm-pits, perineum, and gentalia. Again, there may be an erythema covering the buttocks and perineum, or invading the folds of the joints or the sides of the neck or chin having the color of the lean of boiled ham, with distinctly circumscribed edges, about which are the rust-colored spots already described.

Ecthyma, as seen in the case before you, is a common occurrence. This eruption is usually seated on the buttocks and perineum, but may appear on any part of the cutaneous surface. When the pustules are few in number each one consists of a violet-colored blotch, covered with a thick, blackish crust and surrounded by a dark-purple or coffee-colored areola. The crusts cover ulcers which are apt to deepen rapidly and leave unsightly scars. When the pustules are crowded together the areolæ join, so that all the skin of the involved area presents a red-purple or coffee hue.

In addition to the eruption described, remember that the skin of a syphilitic child is dry and parchment-like, and often scaly, particularly on the palms of the hands and soles of the feet, and that fissures are often observed between the fingers and toes, or radiating from the anus and angles of the mouth and even from the angles of the eyelids. A red, glazed appearance of the palms and soles is also to be noticed. The hairs of the eyelashes and brows often fall out and the edges of the lids become scaly. The face, especially the forehead and bridge of the nose very frequently have a yellow or *café-au-lait* color, this never extends to the rest of the body. Mucous patches may be developed on the skin or upon the mucous membrane. When on the skin, their seat is beside the anus, at the angles of the lips, about the genitals, at the arm-pits, between the fingers and toes, or anywhere where the skin is delicate and moist. They are patches of varying shape, of the consistence of mu-

cous membrane, reddish or gray in color, constantly moistened by an offensive secretion. On the mucous membrane they vary in shape, but usually appear as irregularly rounded white elevations, having in the centre a depressed point, which rapidly spreads into a simple ulcer. They may be seen in the mouth, on the fauces, or on the mucous membrane of the vagina.

A species of whitlow, as in the case before us, is often present. It consists in inflammation and suppuration of the matrix of the nail and results in loss of the nail. Sometimes every nail, both of the fingers and toes, is thus affected.

The cry is characteristic, its tone being high-pitched and hoarse, and when once heard easily recognized again. Occasionally the hoarseness is accompanied by attacks of laryngismus stridulous. Both symptoms being due, probably, to the presence of mucous patches in the larynx.

While the fontanelle of syphilitic infants is late in closing, and ossification generally is late and imperfect, the teeth do not seem to be delayed in their development and eruption; in fact, premature cutting is oftener seen than the reverse.

Bone disease is common in inherited syphilis. Parrot describes a peculiar lesion which attacks the ends of the long bones and the ossifying layer of the epiphysal cartilage. This he calls "syphilitic dystrophia;" it is a condition of suppurative ostitis of the epiphysal end of the bone affected and at first affects the layer of cartilage which is in preparation for ossification; later destructive changes take place in the bone itself. The result is separation of the epiphysis with the ossifying layer of cartilage from the shaft of the bone and suppuration about the affected region, but no involvement of the joint. This condition, when it occurs, is an early manifestation of specific taint, and usually attacks several bones, the femur is most frequently affected, next the humerus, tibia, ulna, radius, fibula, ribs, ileum, scapula, clavicle, oscalcis, astragulus, metatarsal, and metacarpal bones. The symptoms are characteristic; there is complete immobility. Thus the arms may lie pronated by the side of the body, the legs may be stretched out straight in the bed, and, when the patient is lifted, hang loose and sway from side to side. Crepitation can often be obtained between the shaft of a bone and its epiphysis; the joints are tender to pressure, and when suppuration occurs become bent and stiff and extremely painful.

Exquisitely painful aching nodes may develop on the shaft of the long bones and indurated masses are often discernible in the areolar tissues, tendons and muscles.

So far as the superficial glandular system is concerned, it is common to find the glands at the nape of the neck, beneath the occiput, enlarged and hardened.

Enough has been said of the general physical condition, and it is unnecessary to pause on this point further than to accentuate the marked emaciation, pallor, and universally impaired nutrition usually noticeable.

As to the internal organs, suppuration of the thymus gland and lungs have been mentioned. Gummata may also form in the lungs, and syphilitic pneumonia has been described. The liver may be hypertrophied and indurated; this when it occurs is an early lesion and is attended by pain in the belly—shown by moaning and uneasy movements of the limbs—vomiting, irregular bowel movements, tympanitic and tender abdomen, quick pulse and pinched and drawn features. Jaundice is rare; though, sometimes, the pressure of the enlarged liver upon the vena cava may produce œdema of the legs and scrotum. Local peritonitis may accompany the hepatic disease.

According to Gee the spleen is enlarged in one-half of the cases of infantile syphilis. The extent of this enlargement may be taken as an index of the severity of the poisoning, though the organ does not rapidly diminish under treatment, and may remain for years a sign of the original disease. Sometimes an enlarged spleen is the only sign of a syphilitic cachexia.

Syphilis of the heart and kidney is so seldom seen in infants that it is unnecessary to dwell upon the subject.

Let me say here that there is no uniform relation between the lesions of the internal organs and the general symptoms, one or other being accentuated as the case may be.

A peculiar form of paralysis is sometimes observed. The anterior branches of the brachial plexus are affected, resulting in more or less complete motor paralysis of the upper extremities.

In exceptional cases the manifestations of inherited syphilis remain undeveloped until the seventh or even the fourteenth year. Scaly, copper-colored eruptions, interstitial keratitis, discharges from the ears, nose and

so on may then appear. In these cases also we notice the Hutchinson or syphilitic teeth. Let us next consider the etiology. Syphilis in my opinion is usually transmitted to the child through both parents. The severity of the symptoms depends upon the time that has elapsed since the appearance of the primary lesion in either parent. It has often been stated that a healthy mother may bear a syphilitic child. I do not think this statement is correct, for I have never seen a syphilitic child infect its mother while nursing at the breast, which would undoubtedly be the case provided the child was affected solely through the father. In regard to the question of inoculation from one parent, the blame must be thrown upon the mother rather than the father.

The diagnosis of inherited syphilis is quite easy provided the symptoms described be present. If, however, there be no active manifestations, you must base your opinion upon the following: Flattened bridge of the nose, *café-au-lait* color of the forehead, linear cicatrices about the angles of the mouth and at the anus, protuberant forehead from infantile arachnitis, chronic coryza, enlargement of the liver and spleen, general malnutrition, and if the case be old enough, the presence of Hutchinson teeth. The parental history if it can be truly elicited is of great aid in the diagnosis. The prognosis depends in the first place upon the date that either parent has presented the primary syphilitic lesion; should this be recent the child is very apt to die; if both parents be syphilitic the child is more apt to succumb to the disease than if only one parent be diseased. Again, the outlook depends upon the period at which syphilis develops in the child; thus in utero it is always fatal, while after the seventh month much may be accomplished by treatment. The gravity of any one group of symptoms does not influence the prognosis so much as the state of the general nutrition; should this be poor, death is very apt to occur.

The degree of the nasal obstruction should always be considered, for should this be extreme the child is unable to nurse sufficiently and great interference with the food supply results.

Treatment: Should one or two children in a family be born syphilitic, and another be expected, it is always advisable to treat the mother for the specific disease. It is not necessary for me to give you explicit directions, for of course you will use mercurials or the iodide of potassium according to the stage of the disease. Should the child be born apparently healthy but with a distinct syphilitic history, anti-syphilitic treatment must be begun at once.

I prefer the mercurial treatment from the outset. Mercury may be administered by the mouth, by baths, or by inunctions. By the mouth one one hundred and twentieth of a grain of corrosive sublimate may be administered three times a day, or one twelfth of a grain of calomel thrice daily, or again, one grain of mercury with chalk three times daily, gradually increasing each dose to two grains; the last is less apt to disturb the stomach or intestines than either of the former.

Mercurial baths should be used every two, three or four days unless erythema be produced by their employment, for these baths corrosive sublimate is used, each containing ʒss of the salt; this quantity may be gradually increased fifteen grains at a time until ʒi or ʒiss be reached. Personally, I prefer inunctions. Fifteen grains to ʒss of mercurial ointment should be rubbed into the skin each day. In this process it is important to select a different portion of the body for each day's inunction, as the application is apt to produce an eruption upon the skin. Be careful to keep the skin perfectly clean during this treatment. Another good method of application is to smear it on the binder, the child's natural movements being successful in rubbing it into the skin.

Iodide of potassium is useful when there is much bone trouble with nocturnal pains, and in the nervous affection may either be used alone or combined with mercury.

Various local treatments are necessary, for example in cases of coryza keep the nose perfectly clean by syringing with salt and water (ʒi to Oi) twice daily. Touch the nasal mucous membrane every other day with a weak solution of nitrate of silver (gr. v to ʒi) or blow into the nostrils three times a day a powder composed of boracic acid gr. xx to gr. xl of bismuth subnit. If crusts have formed, carefully remove them, and apply somewhat stronger applications of silver nitrate, ten or twenty grains to the ounce. If the bone is involved resort to surgical means. Ulcers on the lips should be touched with the solid stick of silver nitrate, followed by the application of dilute citric ointment or the ointment of ammoniated mercury one-half the officinal

strength. Patches on the skin should be cleansed with salt and water and dusted with calomel. For the eruption simply apply the nitrate or ammoniated mercurial ointments. Under such treatment the child I showed you is rapidly improving and I have no doubt she will recover. While using anti-syphilitic treatment be careful to maintain the general nutrition by dietetics and otherwise.

PNEUMONIA IN THE NEW-BORN INFANT.—SCRAPING OF THE CERVIX UTERI FOR CARCINOMA.—TRUE PATULOUS FORAMEN OVALE.—TYPICAL RECOVERY AFTER LAPAROTOMY.[1]

BY BARTON COOKE HIRST, M. D.,

ASSOCIATE PROFESSOR OF OBSTETRICS, UNIVERSITY OF PA.; VISITING OBSTETRICIAN TO THE PHILADELPHIA HOSPITAL, ETC., ETC.

Pneumonia in the New-born Infant.

Gentlemen: I wish to call your attention this morning to an interesting case which occurred recently in the Maternity Ward. It is that of an infant which, shortly after birth, developed a rise of temperature to 102°, associated with exceedingly rapid respirations, reaching 100 in the minute, while the pulse ranged from 120–144. These symptoms were accompanied by a constant cough, occurring with almost every respiration. This led the resident obstetrician to suspect pneumonia, due, very likely, to the inhalation of irritating particles during the passage of the head through the parturient tract. I examined the child carefully, but was unable to elicit any of the physical signs of pneumonia except a slight diminution of resonance of a small area of one lung and harsh respiration. I then examined the umbilical cord, for in acute febrile affections of the first few days of life I suspect either a disease of the lungs or of the cord, and thought that I detected there some trouble, and had it not been for the cough and rapid respirations I would have called it by exclusion a case of septic infection from the cord. The presence of the slight pulmonary symptoms, however, decided us to treat it as a case of pneumonia, though there was nothing very definite on which to base our diagnosis. The child was given whiskey and the aromatic spirits of ammonia, and a small quantity of digitalis, and had three mustard baths every twenty-four hours. This latter is a feature of the treatment that I do not believe in as a rule, for in certain cases it will do harm. Often the shock of the bath, and the necessary manipulations prove the last straw which determines an unfavorable termination. Very likely in this case, as the baby was strong and the pneumonia not severe, it did some good by relieving internal congestion, but when the case is a bad one, our one aim should be to save every particle of the infant's strength. In *post-mortem* examinations of infants who have died from pneumonia, the right auricle is invariably found enormously dilated and engorged with blood. This strongly indicates that remedies to sustain the heart are needed in these cases, hence my reason for exhibiting the digitalis. The rise of temperature here, as you can see by glancing at this chart, began on the day following the birth of the child, and lasted for some time, but it finally sank to normal. This morning, however, there was a slight rise again, and though I had fully intended to bring the child before you, I decided not to do so.

Scraping of the Cervix Uteri for Carcinoma.

This patient is a woman, 52 years old, who has had three children. The menopause occurred two years ago, and since then she has had no show until three days ago, when it returned as a flooding. Since then she has experienced some pain. If you note the color of her skin, in connection with the history of her symptoms, you can make the diagnosis of carcinoma of the uterus with considerable assurance. Of course, vaginal examination is necessary to confirm this diagnosis; here it tells us that the case is one of papillary carcinoma, springing from the cervical pavement epithelium and extending for a short distance upon the vaginal mucous membrane. Unfortunately almost all of the cases in this hospital come to us too late to be benefited by a radical operation.

In operating for cancer of the uterus, we have three proceedings from which to choose. Our choice is governed by the progress the disease has made. We may

[1] Delivered at the Philadelphia Hospital.

resort to the excision of the cervix by high amputation, to the total removal of the uterus by the vagina, or, as I shall do in this case, because the disease has spread too far, the removal of the cancerous growth by the curette, with the application of some destructive agent to the diseased tissues necessarily left behind as the cautery, nitric acid, bromine, iodine, chloride of zinc, the chlorate of potassium, or any of the caustic agents of which we have a long list. Such an operation will help the patient greatly and improve her condition for a time at least, and it may be for years, with the very remote possibility of absolute cure. Had I seen this woman two or three months sooner, I might have resorted to a vaginal hysterectomy, but this is now out of the question as the vagina and the tissues adjoining the uterus are involved. It is not to be wondered at that such patients do come to us too late, for often there are no symptoms to attract the woman's attention until the occurrence of a hemorrhage, and in the present case this only appeared three days ago. She tells me that there had been a discharge for some time before this which she neglected, as a woman in better circumstances would probably have done.

The operation I propose doing consists in curetting away the papillomatous mass, and cauterizing the tissues left with Paquelin's cautery, care being taken not to scrape or to burn into the peritoneal cavity or the bladder. This, however, is not necessarily a fatal accident. A wooden, cylindrical speculum is needed for the introduction of the cautery, as a glass one will break, and a metal one will transmit the heat. While the patient is being etherized, I will speak to you of two other cases of some interest.

True Patulous Foramen Ovale.

At the conclusion of my last clinic, I invited a portion of the class to witness a *post-mortem* examination upon an infant which had died cyanosed. I found in the lungs evidences of imperfect expansion and of congestion, but there was neither complete atalectasis nor pneumonia. In the left kidney I found a rather curious anomaly, a very great hypertrophy, but no disease, no hydronephrosis. The supra-renal capsule was also hypertrophied. The cause of death, however, was a true patulous foramen ovale. This is a much-abused subject; many children dying in a cyanotic condition being said to have a patulous foramen. The foramen ovale remains patulous to a slight degree for some months after birth, at times even to the end of the first year. A true patulous foramen ovale, as I understand it, is one where no provision has been made by nature to close the opening. The flap of endocardium in the left auricle, which should close the foramen, is absent, allowing the blood to pass through the body without reaching the lungs, and as a result the child dies of a slow asphyxia. This condition is a rather rare one. In the large number of autopsies I have performed on infants, I have only seen three cases. There is a small point in the technique of looking for this condition, which is worth remembering; that is, the way of removing the heart from the chest. It is well to make one's incision from the ascending cava upward, slitting open the right auricle on the anterior, upper, aspect. Catch the ascending cava between the thumb and the forefinger of the left hand, lift it well up, snip it across with scissors, remove the heart by severing its other attachments, still, however, holding it by the ascending cava, then open the auricle by inserting the scissor's point well within it through the ascending cava. This method gives a good view of the foramen ovale and the eustachian valve.

Typical Recovery after Laparotomy.

Some time ago I referred to the fact that in the two laparotomies I had last performed, I had found abdominal abscesses. I overhauled and cleaned my instruments in order to remove any possible cause of infection, but I am strongly inclined to believe that they resulted from my fingers coming in contact with the clothing of some of the spectators. I therefore resolved to use greater precautions in this respect in my subsequent operations. Consequently the next operation I performed was a perfect success in every way, and the next one was the most typical case of recovery I ever observed following a laparotomy. I show you here the dressing next the wound removed in one week, perfectly dry, without even the linear stain which is commonly seen upon it. There was perfect union of the wound by first intention. The temperature here was regular, as much so as in any of us, with no fever.

Our patient being now under ether I will proceed with the operation. One needs but few instruments for this operation. A large curette, with serrated edges is best; a vol-

cella to pull down the cervix; a sound to locate the cervical canal if necessary; and the blunt tip of the Paquelin's cautery, to avoid penetrating into the peritoneal cavity. Should the cautery fail to work I shall resort to the employment of fuming nitric acid. The proper heat for such a cauterization is a cherry red. Many cauteries are ruined by overheating, the spongy platinum at the end being fused.

If I should find, on examining the patient under ether now, that the extension of the disease is less than at a rather hasty examination first appeared to me, I shall not do the operation I have suggested, but shall have her carried to the ward, and shall later remove the uterus through the vagina. Before examining her I will have the vagina washed out with a bichloride solution. This may seem unnecessary, but it is a wise precaution to take, as the micro-organisms with which the vagina is now swarming, will be washed away and destroyed, and as I use the curette the whole system will not be infected as it otherwise might. It is a curious fact that these cases rarely die of septicemia. This is due to the fact that the process is a slow one, and nature throws out around the malignant mass a strong barrier of indurated tissue which prevents the invasion of the germs of putrefaction. These patients die usually of exhaustion, of hemorrhage, or of anæmia from involvement of the bladder and ureters with retention of the urine.

I find here that the disease has extended into the vaginal connective tissue and over towards the side of the pelvis. It would be criminal to remove the uterus, as in so doing I would infect her in all probability, and at any rate there would be a continuation of the disease. I shall, therefore, proceed to curette the cervix. The hemorrhage which occurs during the curettement is sometimes alarming, but one should remember that when he gets past the cancerous structure the hemorrhage will almost cease, so the more energetically he curettes, the less the hemorrhage. I find a cavity here extending almost to the peritoneum, hence I must proceed with care. Here in front is another place in which the disease has almost entered the bladder. Here you can see the considerable amount of tissue which I have removed, and there is almost as much diseased tissue remaining. I dare not scrape here as I would like, for the disease has progressed further than I expected, and there is but a thin partition between the excavation and the peritoneal cavity. In case of a large soft mass when we fear perforation, the finger is the best curette, but when the growth is denser and firmer we must again use the curette. It is remarkable that the woman had not a hemorrhage sooner, as there is a most extensive excavation here penetrating into the connective tissue toward the broad ligament, and anteriorly almost into the bladder, while posteriorly I fear it has gone all the way down to the peritoneum.

I shall now clean out the vagina with some cotton. Then use the cautery to destroy the cancerous material I have been unable to remove. It is, in addition, one of the best of antiseptics, and its thorough application to the vaginal vault, at the bottom of a long cylindrical speculum, is facilitated because it acts as an excellent illuminator. The patient should suffer no pain after this cauterization unless I have gotten into the peritoneum. I burn this more thoroughly than I should ordinarily, because I was unable to remove all the growth with the curette. As there is some little bleeding here I will insert a tampon of wool with iodoform. This will be removed in thirty-six hours. She will get enough opium to make her comfortable. She is doomed in all likelihood to suffer most excruciating pain in the near future. In that case I would encourage her to take opium continuously to the degree of partial narcotization. It is possible that the operation itself may prove fatal, for the disease is in an advanced stage, and I may unconsciously have penetrated the peritoneum. She will otherwise probably die in from three to six months, very likely from uremic complications.

Hot Water Plants.—J. Walter Fewkes has an interesting paper in the May number of the *American Naturalist* on the vegetation of hot springs. That vegetation can exist in these hot springs—the highest temperature on record in which it occurs is 200° Fahr.—indicates that vegetation may have occurred at a much earlier stage of the earth's history than has been generally supposed. The prevailing form of vegetation in these heated waters is algæ. Diatoms also occur, but sparingly. They have been found in Nevada at a temperature at which the vegetation of hot springs is most flourishing, but usually occur in great abundance in the cooled waters of hot springs.—*Popular Science News*, Feb., 1890.

COMMUNICATIONS.

REPORT OF A CASE OF ABDOMINAL SECTION.[1]

BY CHARLES P. NOBLE, M. D.,

SURGEON-IN-CHIEF, KENSINGTON HOSPITAL FOR WOMEN, PHILADELPHIA.

Acute Pyo-salpinx, and Abscess of the Ovary, following Abortion.—Woman in Desperate Condition of Prostration from Sepsis.—Laparotomy with removal of Tube and Ovary.—Recovery.

On Tuesday, December 31, 1889, Mrs. Y. applied for treatment at my clinic at the Northern Dispensary. She gave the following history: German; twenty-three years old; married one year; always healthy until present illness, which dated back to a miscarriage at the third month, seven weeks previous. The physician in attendance told her that the fetus was putrefying. He emptied the uterus manually, and used no douche afterward. The following day, as she was without money, word was sent the physician that he should not call again. She was in bed six days, and then got about the house. During this time there was constantly a bloody, foul-smelling discharge, but no chill. Later she attempted housework, but suffered so much from pain in the right iliac region that she was obliged to give it up. The discharge continued, and the pain grew worse until she was compelled to go to bed, some days before applying at the clinic. She had become so weak from recurring chills, sick stomach, inability to eat, and pain, that she required the assistance of her husband to walk. On examination the skin was found hot and dry, pulse 160 and weak. The pelvic cavity was filled with a semi-fluctuant mass extending from the right wall of the pelvis to the uterus, which was displaced against the left wall of the pelvis. This mass was not very tender, was not attached to the pelvic wall or vagina, and was clearly a tubo-ovarian abscess, and not an abscess in the broad ligament. The abdomen was not excessively tender, and there was no evidence of peritonitis. The vagina contained a considerable quantity of foul-smelling discharge. She was extremely sick, and the outlook for recovery was bad. She was advised to enter the Kensington Hospital for Women for operation, after preparatory treatment. Mrs. Y. was sent home to bed, hot carbolized douches ordered, and she was put on co. licorice powder, and quinine, with deod. tr. opium to relieve pain, poultices over the hypogastrium, together with such liquid diet as she could take. The following day she was better—her pulse was 120, and her temperature 102° F.—and the treatment continued. The next day the pulse was 110 and the temperature 100° F. and she was admitted to the Hospital late in the afternoon.

My intention was, if possible, to get her in such condition that abdominal section could be done, and the abscess removed with a prospect of a cure. But the jarring incident to the removal to the Hospital made matters worse. The following morning she had a septic chill; pulse 150; T. 105° F.; skin "leaky;" face anxious; but no signs of peritonitis. Antipyrin (grs. v) was given, with stimulants, and the patient was bathed with alcohol and water. Under this treatment apparent improvement followed for some hours; to be followed later by a steady rise in the pulse rate and temperature. It became plainly evident that the patient would shortly die unless relieved of the pus. In her weakened condition it seemed probable that death would result from shock, were an attempt made to remove the abscess by laparotomy. Hence I felt inclined to tap per vaginam as a palliative measure. Mrs. Y. was removed to the operating table, etherized, and examined. Under ether it was quite plain that the abscess was not attached in Douglas's pouch, and I considered that tapping per vaginam would result in letting the pus into the cavity of the peritoneum, and cause septic peritonitis, and early death. Therefore, laparotomy was decided upon as affording the only hope of recovery. Everything being ready, it was immediately done, in the presence of Drs. Boyd (assisting) and Applebach, and the nurses.

On opening the abdomen and passing two fingers into the pelvis, a large fluctuating mass was felt, occupying almost the entire pelvis, and displacing the uterus against the left pelvic wall. On touching this, pus gushed forth and a large part of the ovary floated to the surface. An immense tube, of a calibre in places of an inch,

[1] Read before Northern Medical Association, Jan. 24, 1890.

and six inches long, was separated from adhesions and delivered. The pelvic cavity was then irrigated with boiled water, of 110° F., to remove the sanious pus, probably a pint of which had escaped into the peritoneal cavity. The tube and remaining portion of the ovary were carefully washed, ligated, and removed. This occupied fifteen minutes. The other ovary and tube were found perfectly healthy and were not removed. The peritoneal cavity was again thoroughly irrigated by pumping water between the intestines with a syringe, and by pouring water from a pitcher, more especially over the omentum. The cleaning process was assisted by sponging the ante- and retro-uterine pouches, and the iliac fossæ. This consumed ten minutes, but was not hastened, as the patient's condition improved under the influence of the hot water. Owing to the intensely septic character of the pus, the stump and the edges of the abdominal incision were wiped with a sponge moderately wet with bichloride solution, 1-2000. A drainage-tube was inserted, the incision closed, the dressings applied, and the patient put to bed in better condition than when she left it. Before operation the pulse was 140; temp. 104° F. When put to bed the pulse rate had fallen to 120. During the operation only enough ether was used to keep the patient gently under its influence, profound narcosis being avoided.

Mrs. Y. made an uneventful recovery. The gauze was removed from the tube twice daily, and the tube removed after 54 hours. The discharge was moderate. The temperature declined from day to day, became normal within the first week and remained so. The stitches were removed after six days; union by first intention, except the site of the drainage-tube, which shortly closed. The after-treatment was carefully attended to. Champagne was given, and the amount increased to two drachms every half-hour. Beef tea, and milk and lime water were given after twelve hours to the limit of tolerance of the stomach. Digitalis by the mouth, and strychnia hypodermically were used during the first day. Later, the nourishment was pushed, sherry substituted for champagne, and the other medicines stopped. The bowels were kept open with glycerine and turpentine enemata.

This makes my tenth laparotomy, all of which have recovered.

The happy result in this case was more than one could expect, and is an illustration of what can be accomplished at times under adverse conditions. The favorable result was due to several causes. The septic chills were probably from the absorption of ptomanes from the pus, and not to true septicemia. While the tube was everywhere adherent the adhesions were easily separated, much time being thus saved, and shock avoided. The thorough irrigation doubtless did much to promote recovery, both by removing septic pus, and stimulating the nervous system. Even with thorough irrigation it is truly wonderful that these patients escape septic peritonitis, when virulently septic pus has been poured among the intestines. The drainage-tube in this, as in all pus cases, relieved the peritoneum of much fluid. The *morale* of the patient was good; and was assisted by the nurses, who find it difficult to believe that any one can die after abdominal section.

The proper management of such desperate cases, seen late, is a most interesting question. Cases of true pelvic abscess—not uncommon after labor, less common after abortion, and extremely rare in non-pregnant cases—should undoubtedly be evacuated per vaginam, or above the pubes, without opening the peritoneum; or in some cases after an exploratory laparotomy for diagnosis, and for fixing the site of incision. The sooner such abscesses are evacuated the better. The management of certain cases of pyo-salpinx and tubo-ovarian abscess is not so plain. When the patient's condition is good prompt removal of the diseased appendage is the recognized method of the treatment. But when the patient's condition is such that a little shock will kill, there is room for true conservatism and discrimination.

In acute cases time and proper medical treatment almost always brings improvement, and a better opportunity for saving the patient by operation. The history of such cases is that of many recurring attacks of serious illness, followed by improvement. Operation when the patient is prostrated is likely to be followed by death from shock; hence my rule is to wait until the acute symptoms have subsided, and the patient has had an opportunity to recruit her strength. But there are exceptional cases—as illustrated by the one reported—which must be operated on at once, as the only means of saving life. If the tubo-ovarian abscess is small, and the condition

principally a peritonitis which tends to spread, laparotomy with separation of adhesions, emptying all pus sacs, removal of the diseased appendages, irrigation and drainage is demanded. The same is true of large abscesses in which there is little complicating peritonitis, so that the general peritoneal cavity is not shut off, by intestinal and omental adhesions, from communication with the sac of the abscess. In such cases tapping per vaginam would almost surely result in leakage of pus into the cavity of the peritoneum, septic peritonitis and death.

In cases of large pyo-salpinx and abscess of the ovary, in which the viscera are matted together and the pelvic cavity isolated; cases in which during an acute attack of pelvic inflammation the life of the patient is threatened by sepsis, the pus can be evacuated per vaginam, the crisis be safely passed, and an opportunity be given for the successful removal of the diseased appendages later, when immediate operation would almost ensure death from shock. There is no doubt that a cure may at times follow vaginal tapping of abscesses of the uterine appendages, but I believe that tapping should be regarded as a temporary expedient of value under the conditions named, and not as a means of cure.

To wisely discriminate in these acute cases of pelvic inflammation, to decide which cases shall be treated by medical means alone, which shall be subjected to abdominal section at once, and which to palliative tapping, requires the exercise of the greatest care and judgment on the part of the surgeon.

FUNCTIONAL NERVOUS DISTURBANCES CURED BY THE CORRECTION OF ERRORS OF REFRACTION.[1]

BY GEO. N. KREIDER, A. B., M. D.,
SPRINGFIELD, ILL.

It has been known for some years that certain headaches and other pains in the head called neuralgias were due to gross errors of refraction and were curable by proper glasses, but it is only recently that we have learned what great disturbances could be caused by very slight errors of this nature and how important it is to pay attention to them before proceeding to the medical treatment of all functional nervous derangements. One case of mine will serve to emphasize this statement. Miss H., now 19 years old, consulted me in 1883, for severe headaches, which persisted in spite of all my medication. Suspecting trouble with the eyes, I referred the case to Dr. Prince, and was much humiliated to have her returned with a note stating that the error was so slight that it was not worth correcting. In June, 1889, the lady's mother again mentioned her headaches to me, and having forgotten the previous testing of her eyes I suggested an examination of them. She immediately recalled the fact that Dr. Prince had already examined them six years before and pronounced them all right. "Well," I replied, "bring her in again without fail, for doctors have learned a good deal about these cases since the time of that examination." She did so, and the error, which now amounted to ½ dioptric, was corrected and the neuralgic headaches have been entirely cured. As I said before, I mention the case to show that specialists themselves are only waking up to the importance of compensating slight abnormalities.

The attention of the entire profession should be called to this important subject. It does not require much study nor money for a general practitioner to so sufficiently acquaint himself with the methods of examination as to know when a glass is required. Of course he should not attempt with this slight knowledge to prescribe a glass but should refer the patient to the nearest competent specialist for a thorough examination under the influence of atropine. By means of Dr. Culbertson's prisoptometer one can make this preliminary examination. The instrument only costs about $25. I need not give a description of it, as it is simplicity itself, and its manipulation can be learned in an hour.

Up to this time my experience has been confined to the treatment of epilepsy, neuralgia, headache, and constipation. My most remarkable experience has been in the treatment of two patients who had suffered for a long time with epilepsy. One Fred. C., 19 years old, had suffered from attacks of petit and grand mal for a period of five years. The first attack came on in the evening after a day's work plucking corn. This

[1] Read at the fourteenth semi-annual meeting of the District Medical Society of Central Illinois, Nov. 12, 1889.

form of labor requires constant use of the eyes in a stooping position, as you all well know. An interval of a year followed without any attack, when a second spasm followed after a day's work at the same labor. Following this last-mentioned attack the fits were numerous, and not controlled by any medicine, which he took as prescribed by one of my colleagues in Springfield; and which, I presume, consisted largely of bromides. When he consulted me my attention was called to the peculiar appearance of his eyes, and I was also impressed with the fact that his first two attacks had come on after plucking corn, as I have already stated. I immediately examined his eyes and found that my suspicion was correct. I referred him to Dr. Prince for more thorough examination and he found R. $\frac{+1.25\ D\ C}{+5\ D\ S\ 90°}$ L. $+.25\ \frac{D\ C}{90°}$ and prescribed the proper glasses. His epilepsy was to a large extent but not altogether controlled by this means alone. The dissipation and surroundings of the patient I believe only prevented a complete cure. The study of this case taught me a lesson, and in the case of Julia McC., whom I had been treating for about a year for epilepsy with only fair success, the next time she put in an appearance I examined her eyes and found an error which Dr. Prince proved to be only ¼ dioptric for each eye. She put the glasses on and has worn them since January, 1889. She has had no spasm since July, 1888, and has not taken any medicine at all since May, 1889, a period of about six months. She is no longer constipated and the yellowish color of the skin has disappeared. She frequently suffered before from severe headaches, but has only had one since wearing the glasses and that only slight. That she had genuine epilepsy, and that for a period of ten years, I think there is no doubt. Those who have seen her during one say that they begun with a look and cry of terror, then followed violent twitching, frothing at the mouth, and biting of the tongue. I have seen the lacerations of the tongue myself and can therefore bear witness that they actually existed.

I have the following cases of neuralgia and headache to report as cured by proper glasses:

Sigmund L., fruit merchant, 25 years old, suffered almost constantly with neuralgia or headache, involving particularly the region over the eyes. His eyes were plainly on a constant strain, although he wore glasses prescribed for him by a charlatan who recently infested our city. He was found to have a quite remarkable error which was only fully corrected when atropine was used. It amounted to

R. $\frac{-5.\ D\ S}{-1.\ D\ C\ 45°}$ L. $\frac{-5.\ D\ S}{-3.\ D\ C\ 45°}$.

When the proper glass was at last fitted he gained complete relief. He takes no medicine to prevent his headache and when he does have them, averaging about once a month, they are very light.

Mr. Geo. W. M., 32 years old, is another case who suffered greatly from neuralgia and other obscure nervous symptoms, and who was relieved by R. $\frac{+1.75\ D\ C}{+5\ D\ C}$ L. $\frac{+2.5}{+25}$ glasses.

Miss Ella T., a high school student, has irregular menses, constipation, headaches, and hysterical attacks which were largely relieved by correction of her error, amounting to $\frac{+.25\ D\ C}{+\ .5\ D\ S\ 90°}$ for both eyes.

Mr. L. B., of Peoria, suffered greatly from neuralgia, which was only relieved after an examination and correction of a slight error had been made.

Sister C., Catholic school teacher, suffered from headaches and constipation, which symptoms were greatly relieved by glasses.

Some of the most interesting of my cases have been females on whom I had already operated or had treated for uterine difficulty. I supposed their neuralgic head pains were altogether due to the manifest uterine disturbance, but as that symptom persisted after a cure of the laceration or version I had them examined for glasses and secured its amelioration.

Mrs. Jos. E., 28 years old, had an extensive laceration of the cervix uteri with the usual symptoms of pain in the back and limbs, top of the head, etc. She was operated on with an excellent result. Head pains still continuing, I accused the eyes of a part of the crime and found them guilty. The error amounted to +.5 D C 90° in both eyes. Since it has been corrected her relief has been marked, although, because of her pride, she will only wear the spectacles in reading.

Mrs. R., 25 years old, is a case almost identically like the one just mentioned. Her error was greater, however, amounting to R. $\frac{+1\ D\ S}{+1\ D\ C\ 90°}$ and L. $\frac{+1\ D\ S}{+1.75\ D\ S\ 90°}$. The relief afforded was very marked. I

have treated three other cases with a similar history, but they have not been tested long enough to allow me to make any statement regarding them.

I hope it will not be supposed that because I have selected the subject of the cure of functional nervous disturbances by the correction of errors of refraction that I have taken up the specialty of the ophthalmologist, nor that of the neurologist, but have had simply in mind the helping of my brother general practitioners over what may be to them difficult places. I take great delight in treating diseases by mechanics rather than by physic, or, if I may be allowed to pluralize it, physics, and these cases are just in that line. Their relief has been a source of great satisfaction to me.

CREMATION.

WHAT IS THOUGHT OF IT BY PHYSICIANS.

Interviews with Physicians by a Representative of the Medical and Surgical Reporter.

Eighth Series.—Buffalo.

Dr. Chas. Cary, who is President of the Buffalo Crematory Company, says: I am an advocate of cremation both on scientific and on sentimental grounds. It was first brought forcibly to my attention by the death and cremation of my father. At the time his cremation was a shock to me, on account of the unpleasant notoriety then connected with this method of disposing of the dead. I have gradually come to regard cremation, not with a feeling of indifference, but as decidedly to be preferred to burial, not only for hygenic reasons, but from the standpoint of sentiment. Dr. Frederick Peterson, now of New York, was the first to agitate the question of cremation in Buffalo. The first organized movement in this direction followed a paper read by me on the subject before the Buffalo Medical Club, setting forth the advantages of cremation and advocating its introduction. An informal set of resolutions, favoring cremation and advising its introduction in Buffalo was drawn up after the reading of the paper, and was generally signed by the members of the Club. Some three years later, the formal organization of the Buffalo Crematory Company was effected. On its Board, of nine, there are three physicians, and many other doctors are among the subscribers to the fund. Several physicians and members of physicians' families have been cremated, and several other physicians have made requests that their bodies should be cremated; which requests have been disregarded. Since the completion of the Buffalo Crematory, in February, 1886, there have been sixty-five cremations, the number having increased each year; although during this time six other crematories have been built in other States than New York. The Board of Health recognizes cremation as a legitimate mode of disposing of the dead and grants permits for cremation. Buffalo has been exceptional in the interest shown in cremation. The Buffalo crematory was the third to be established in this country, having been built at about the same time as the one in New York. It was the first crematory in whose construction the idea was carried out of adding a chapel to the furnace, and of having the surroundings in keeping with the solemnity appropriate to death. The supporters of the Buffalo Crematory are among the most intelligent and representative citizens of the city, and they number not only physicians, but lawyers, business men, and others who have become interested in cremation with no professional prejudices. At the time of the organization of the Crematory Company, some opposition was anticipated; but there has been little or none. Cremation has been preached from three pulpits in this city.

Dr. D. W. Harrington, when asked for his views concerning cremation, replied sententiously, I am vice-president of the Crematory Company and a large stockholder in it. I favor cremation for sanitary reasons.

Dr. Roswell Park says: I believe in cremation as the rational and sanitary way of disposing of the dead. There can be but one objection to it, and that is the sentimental. People accept or reject cremation mainly on sentimental grounds, and are not amenable to reason or argument in the matter. Personally, I consider it preferable even from the standpoint of sentiment. I have seen several cremations, and I think there is nothing about the process to offend any sensibility, and that a number of people who are opposed to it simply because they

do not know how it works in practice, would have their views changed by witnessing a cremation. The various attitudes which clergymen of different denominations take concerning the matter, *pro* and *con*, show that there is nothing in orthodox or other religious views which cuts any particular figure in the consideration of the subject. The Romish Church to-day is violently opposed to cremation; but two or three hundred years ago they were anxious to burn people even before they were dead. The present attitude must be viewed as one of reaction.

Dr. M. D. Maun says: I have nothing to say in addition to what Dr. Park has said, except that, if a person could see an exhumed body some weeks after interment, it might have great influence in changing his sentiments in favor of cremation. Certainly the process of decomposition which takes place under the ground is more disgusting and horrible than anything that can take place in the furnace, and the result is the same in the end. Between having the body destroyed by bacteria and by fire, I should prefer the fire.

Dr. W. S. Tremaine says: I am in favor of cremation. I do not know that it is necessary as a sanitary measure in small places, but in larger cities it is a clean, healthful and cheerful way of disposing of the dead. The precaution should be taken of having bodies examined by some competent physician in all cases before incineration, partly to do away with the slight danger of burning a live person, but more to avoid the hiding of evidence of poisoning. If that danger is guarded against, as it can be, there should be no objection to cremation. Unfortunately not all our medical men are competent to decide the question of poisoning, and cremation might possibly afford a mode of concealing the commission of crime. A columbarium ought to be associated with every crematory, so that the ashes of the dead may be disposed of in urns. Or, a cemetery of less extent than at present required might be used for the burying of the ashes. In this way all the sanitary objections to our present method of burial would be done away with and yet all the sentimental features would be preserved.

Dr. H. R. Hopkins says: I believe in cremation in a limited sense, as the safest means of disposing of the remains of those dying of infectious or contagious diseases. I believe that the question should be kept before the medical profession, and thus indirectly before the people at large, until public opinion is developed to the extent of having statutory provision directing that the remains of those dying of such diseases shall be disposed of by cremation, arrangements being made by municipalities to carry out the provisions of such statutes at the expense of the State: this to be done as part of the quarantine or police regulations of municipalities, towns or counties. I believe that cremation possesses, to certain people, advantages in the way of sentimental considerations, and that private enterprises should be encouraged to offer such advantages to those who are pleased with them. I do not want to advocate that there should be statutory provisions directing the cremation of all mortal remains. I do not think there is a demand for such general cremation. Ultimately, I think, people will look upon cremation as the final triumph of medicine, in the broad sense, over disease. In a great many instances, from the nature of the conditions, we pursue a losing fight, and, in spite of every effort, disease gradually wins the victory. Cremation offers an opportunity to pursue the battle a step further, and it will be to a great many people a source of satisfaction to know that, even if the disease has destroyed the life of the patient, yet ultimately the disease itself has been exterminated, and that the ashes which remain after incineration can be regarded as absolutely free from any kind of disease.

Dr. John Cronyn says: We are now in the nineteenth century, an age of progress, and I am opposed to going backward to the methods in vogue among the heathen. I am opposed on principle to cremation. In large, over-crowded towns, when an epidemic disease is in progress and there is no adequate means of disposing of the dead by burial, cremation might be considered proper.

Dr. Thomas Lothrop says: I have never given the subject of cremation much thought. I think the best way to consider such a question is to bring it home to one's self, and to ask: What disposition would you want made of your body? In my own case I should much prefer the older method of burial. At the same time I should not oppose cremation. As the thing stands at present I should think it was a matter of choice. There is no urgent necessity for cremation: for there is plenty of room to bury the dead. If ours were a thickly populated country like England, it would be

quite different. Here, there is no danger of contamination of drinking water by percolation from the burying-places of the dead.

Dr. Ernest Wende says: I favor cremation, not so much as a matter of economy, not as preventive for premature interment, nor as an interposition to the desecration of God's Acre, but solely upon hygienic grounds. I advocate the process of cremation as purely philanthropic, and its adoption by legislation; for the disposal of the dead by burial is a dangerous and most unsanitary plan. Especially will this be true as our country becomes more densely populated. That the living may not suffer, the body of the ignorant, the bigoted, and the prejudiced should likewise be compelled to burn.

Dr. Wm. C. Phelps says: I believe in cremation as the nicest way to dispose of a dead person. I am a stockholder in the crematory. We dispose of the remains of the subjects used in the dissecting-room by cremation. We have a small crematory in the college building, the fuel used is natural gas.

Dr. Marcell Hartwig says: I can but say that, to my view, the subject of cremation is causing an undue amount of excitement wherever discussed, essentially because of the great quantity of true and false bigotry prevailing.

When mankind shall have learned to distinguish facts from theory or hypothesis, the hot discussions about the value of cremation will subside, and our bodies will be cremated generally, unless some prefer to remain useful even after death, and have their skins tanned into leather and their remains incinerated in the fertilizer works, to form suitable food for the golden grain, in order to help the poor to be clad and fed. If there is a single objection which looks as though it were not to be easily refuted, it would be the danger of cremating the evidences of crime; but others have shown that this danger is not any greater than that from burying it. A prosector at every crematory would readily prevent it, not to speak of the incalculable boon to medical science which such an institution would confer.

A new operation for epilepsy, recommended by Dr. William Alexander, of Edinburgh, consists in the removal of the cervical ganglia of the sympathetic.

RHINO-PLASTY.

BY DR. GEO. GOODHUE,
DAYTON, OHIO.

Of all parts of the face that give character and expression the nose ranks pre-eminently first; and hence its loss or mutilation results in the greatest possible deformity. In the olden time, when it was the custom to punish evil-doers by cutting off the nose, to the deformity was added the stigma of crime.

At the present time in civilized countries the loss of this organ is so generally due to syphilis that now to the deformity is added the brand of immorality. Hence it is not surprising to find that from the earliest time down to the present, restoration of this organ has been demanded of surgeons by operative interference. The art has been practiced in India from time immemorial. Celsus speaks of the operation in his cyclopedia of medicine. In the sixteenth century a new method of operation was introduced by Taliacotius, an Italian surgeon, who wrote a work on nasal autoplasty, which is still in good repute. In the present century it has been largely practiced in Europe and with marked success. In America, too, it has had many enthusiastic advocates, and been practiced with brilliant results, especially in the hands of Dr. Warren, of Boston, and Prof. Pancoast, of Philadelphia.

In rhino-plastic operations there are two methods from which we may choose, the Indian and the Italian. In the Indian operation the tissue is taken from some contiguous portion of the face, in the Italian, from some distant portion of the body, generally the arm. The so-called French method is but a modification of the Indian, and the German a modification of the Italian, neither deserving the honor of a distinct name.

When crime was punished by cutting off the nose, the portion removed was often replaced and so frequently found to grow again that the excised portion was ordered to be burned.

But attempts to transplant foreign tissue upon nose stumps refreshened, without leaving an arterial supply, has proved futile, and whatever method we apply one end of the flap is left attached until the other end has united with the nose. The Italian method, on account of the painful confinement of the head and arm, is now seldom employed; and we choose the older or Indian method,

with perhaps modifications, as was the case in the operation which I will now report.

The patient, female, was 46 years old, of German descent, married, and mother of one child, and in quite feeble health.

She had several large scars on one arm and one on her left cheek; and end of nose, including both alæ and cartilages, gone. She was sent to me in the early part of June, 1887, by Dr. Hooven, to get my opinion in regard to operation for restoring the lost member. In conferring with the physicians under whose treatment she had been for the last three years, I found that these sores were of a specific character and had been very obstinate in healing, especially the one on the end of the nose; but finally they had all yielded and she was left with this terrible deformity.

Although she was unconscious of the cause of her trouble and not especially æsthetic in her tastes, her appearance was so wonderfully marred that she could not tolerate the gaze of passers-by which her deformity attracted, and fairly besought me to make an attempt to build her a new nose.

I reluctantly complied with her request, knowing that several cases had resulted fatally and many attempts had fallen short of the end desired, and the patient was left the original deformity plus a scar of greater or less magnitude on cheek or forehead from which the material was borrowed for construction of a new nose. Having decided to make the attempt, my patient was put on iodide of potash for eight weeks, which very materially improved her general condition.

On August 18, 1887, with the valuable assistance of Drs. J. M. Weaver and H. O. Collins, I made my first operation. I chose the right cheek as the site from which to obtain tissue for transplantation because of the presence of scars on left cheek, and there would not be the necessity of twisting the pedicle of flap as would be the case had I selected the forehead; and, hence, I would be more certain of abundant arterial supply, which, of course, is of the utmost importance in the transplanting of so large a flap as this operation necessitates.

I had previously made a leather flap of proper dimensions to fit the nose stump and restore as perfectly as possible the size and form of the lost organ. This leather flap when increased about one-fourth to allow for tissue contraction it measured 4 inches in length and 2¾ inches at its greatest breadth. This model was placed on the cheek and outlined by nicks with a scalpel which served as a guide in cutting my flap for transplantation, which included all the tissues overlying the muscles; care being taken not to wound the angular artery.

As soon as the hemorrhage had largely ceased and wound had been bathed with a 1 to 5000 solution of bichloride of mercury the flap was returned to its original site and covered with cotton soaked in a hot bichloride solution of the same strength, in order that the flap might not become chilled. The nose having been plugged with cotton, its edges were pared for the reception of the new material, and at this point we met with the most tedious part of the whole operation. The hemorrhage, while it was not profuse, was constant and seemed almost interminable.

To insure primary union, torsion and bruising of the bleeding surfaces was carefully avoided, and hot water and gentle pressure were the only hæmostatic agents that we felt justified in employing.

Finally the new tissue was firmly and accurately stitched to the nose stump by ten sutures of antiseptic silk; rubber tubes were introduced to maintain the natural calibre of the nostrils. Iodoform was plentifully applied covered by antiseptic gauze and all overlaid with an abundance of borated cotton held in place by adhesive plaster.

My patient rallied well from the anæsthetic, although the hemorrhage had necessitated its employment for nearly three hours. She suffered no pain and very little inconvenience. On the fourth day dressings were removed and primary union found to have taken place everywhere except at the end of columna nasi, which was remedied by subsequent operation. Five of the sutures were removed and dressings reapplied. On the sixth day dressings were removed and also the remaining sutures. Nothing more was done for four weeks, when the pedicle was severed and a portion of it carried back to its original position to take the place of the cicatricial tissue at angle of nose, which was removed to make room for it.

After several days had elapsed and it had been demonstrated that the new material was receiving ample nutrition for its support from the nose itself, its upper edge was pared and carefully adopted to the upper portion of the nose stump which had necessarily been previously overlapped by the whole thickness of the cheek flap. This was stitched with silk and dressed under the

most careful antiseptic precautions. In some way my patient at this time contracted a severe cold, had high fever and was greatly prostrated for three or four days. On the fourth day dressings were removed and primary union had taken place at the central and most important portion; but on each side for a short distance it had failed to do so. These small wounds healed, however, very quickly by granulation, with scars invisible except by close scrutiny. Several minor operations were done subsequently in way of ornamentation and we had a nose which, while not as comely as nature's own, was still a fair substitute for the original. My patient was ordered to take iodide of potash occasionally during the remainder of her lifetime. No tendency to a recurrence of the old trouble has appeared since the operation, now over two years.

CASE OF METACARPAL FRACTURE AND DISLOCATION.

BY A. HAMILTON DEEKENS,
RESIDENT PHYSICIAN, ST. MARY'S HOSPITAL.

The two following cases which I saw during my term in St. Mary's Hospital Dispensary last summer, are, I think, from their comparative rarity, worthy of mention in your journal.

Case I.—Geo. F., 25 years old, came in one Sunday morning complaining of a sore and stiff thumb received during a fight the previous evening. Examination showed a complete forward dislocation of the proximal phalanx of the thumb. The symptoms were typical of the displacement, viz., pronounced shortening, dorsal and palmar prominence (also dorsal convexity below the prominence), and the thumb projected slightly outward, and was fixed. Reduction was effected without ether by means of forced traction, using the ordinary clove-hitch knot, at the same time making pressure upward and outward on the palmar projection, a sudden flexion inward bringing the two bones into correct apposition. A binders' board dressing, with firm bandaging, and soothing lotions for the following day or so, was the treatment adopted, and satisfactory results followed. Agnew speaks of this dislocation being quite a rare one.

Case II.—Chas. H., 17 years old, came to Dispensary complaining of a sore hand, received in a fall a few days previously. Examination showed a fracture of the second metacarpal bone about the centre. The boy said that in falling his hand struck a rail which was lying in a slanting direction and then slid down it to the ground.

Agnew mentions having never seen this particular fracture alone, although Hamilton mentions six in an analysis of fourteen metacarpal fractures. The hand was dressed with broad palmar splint, well padded to preserve the palmar concavity, with small pasteboard splint posteriorly, directly over the injured bone. Good results followed.

EMBOLISM OF SUPERIOR MESENTERIC ARTERY.

BY J. H. STUBBS, M. D.,
LONDON GROVE, PA.

Having been benefited by the recorded experience of others, in rare and interesting cases, I am led to report the following, which occurred in my practice:

Wm. M., twenty years old, consulted me Aug. 15, 1889, complaining of pain in the abdomen, of about three hours' duration. Neither pulse nor temperature were abnormal, and his bowels had been moved twenty-four hours before. The day previous to the attack he had eaten corn and blackberries. Thinking the pain was perhaps due to colic, I gave him a cathartic and one drachm of camph. tinct. opii., directing him to keep quiet and take a light diet for the day. He returned at mid-day saying his pain had not abated but during the last hour had greatly increased. His distressed countenance and bent position confirmed the statement. I now put him on his back and carefully examined the abdomen with negative results. I could manipulate the abdomen without producing any additional pain, or eliciting tenderness. There was no tumor or tympanitis, the pain was referred to the umbilical region, was intense. I gave him a dose of morphia which was soon rejected. The patient now assumed all positions, rolling on the floor or walking to and fro. Morphia was given hypodermically, and continued in large doses with as little effect as I have ever seen from so extensive an administration. He was not able to be taken home until about nine o'clock that evening. The next day found him more comfortable—doubtless the result of the anodyne taken during the night. His bowels not having

been moved, I repeated the cathartic. Toward evening the pain increased again. The abdomen became intensely tender; could not bear the weight of the bed-clothing. The patient wanted water, but it nauseated him. During the night the egesta became stercoraceous. I saw him early on the morning of the following day. He had a bad night with no sleep and was pale, his entire body bathed in a clammy perspiration, his nose pinched, his eyes sunken and great prostration very apparent. He still begged for relief from his suffering. There having been no action from the bowels, I administered a clyster—first giving a stimulant, but although I remained some time to see if we would have any response, no movement was obtained. In half an hour after my return home I was summoned, the messenger informing me that the patient was dead. His attendant had been absent from the room about fifteen minutes, when he returned he found the patient lying on the floor dead. He had been up to the commode, his bowels had been evacuated; the stool contained the corn and seeds taken the day before his illness. I never saw a cadaver so markedly cynosed, save one who died from rupture of the stomach, produced by a blow. The body was as dark as a negro: I presume the effort of getting up and the sudden change of position produced heart failure.

Autopsy, assisted by Dr. Gifford, fourteen hours after death: Rigor mortis marked; surface of entire body dark; abdomen somewhat distended. In the abdominal cavity was a large quantity of sero-sanguinolent fluid, containing a large quantity of lymph flakes. The peritoneum and omentum had largely disappeared from suppurative inflammation; there were many bands of lymph uniting the folds of the bowels in many places. There was no occlusion of the bowels. The liver, kidneys, and spleen were normal. The small intestines were intensely hyperemic, in some places almost grangrenous. The mesenteric glands of the small intestines were enlarged, and in the mesentery was a small, dark tumor, which on examination proved to be an embolism of the superior mesenteric artery. Owing to the large size of the vessel occluded and the absence of sufficient arterial anastomosis, the hemorrhagic infract was large and consequently the area of collateral hyperemia was extensive. If there had been no *post-mortem* examination in this case, the cause of death could not have been surmised, but a diagnosis of obstruction or strangulation of the bowels, which the symptoms so clearly resembled, would have been reached. I have not in any of the text books or journals seen a similar case reported.

Society Reports.

NEW YORK ACADEMY OF MEDICINE. SECTION ON ORTHOPÆDIC SURGERY.

Stated Meeting, October 23, 1889.

Dr. A. B. Judson in the Chair.

Dr. H. W. Berg read a paper on

Rachitic Pseudo-Paralysis,

and stated that in this affection the rickety child from two to five years old is unable to walk, and in some cases he cannot stand or even sit. The disability is not the result of nervous lesion, but rather the result of muscular weakness, pain in the muscles and in the bones at the points of muscular attachment, flaccidity of the ligaments, and softness of the bony levers. Such a child wishes to be let alone; he instinctively prefers to keep quiet. This condition is to be distinguished from infantile paralysis by the absence of local atrophy and cold, and real paralysis not so readily, however, from post-diphtheritic paralysis, where the differential diagnosis will rest on the preceding occurrence of diphtheria, the recent origin of the paralysis, and, above all, on the difficulty of swallowing and speaking dependent on involvement of naso-pharyngeal and laryngeal muscles. Spastic paralysis even when mild has an exalted muscular activity which serves to distinguish it from rachitic pseudo-paralysis; and the paraplegia of Pott's disease cannot be mistaken if the kyphosis is obvious. The prognosis is uniformly favorable. These are the cases which give such good results after indiscriminate circumcision. The object of treatment should be to counteract the effect of rachitic malnutrition. These children should have a great deal of milk; cod-liver oil should be given unmixed; and phosphorus in the following prescription:

℞ Phosphori . . . . . gr. j
Alcohol. absolut. . . . . ♏ cccl
Spt. menth. pip. . . . . ♏ x
Glycerinæ . . . . . ʒ ij
M. et Sig. Six minims t. i. d. to be increased one drop until ten drops are given.

Dr. W. L. Carr said that he had seen a number of cases in which a striking lack of muscular power was symptomatic of rickets, although bone changes were not obvious. A number of these children had been fed at the table or on patented foods. Proper attention to diet soon brings about a restoration of muscular power without tonics.

Dr. R. J. Devlin recalled well marked cases of this affection in children who had been exclusively fed on milk from a healthy mother.

Nervous Symptoms produced by Phimosis.

Dr. T. H. Holgate said that in his experience with non-rickety children the relief of preputial irritation by discriminating operative interference had removed serious nervous troubles. In one case, which he had presented to the Academy, inability to walk or stand had been relieved in this way in a child who was entirely free from evidences of rickets.

Dr. R. H. Sayre related a similar case of a boy, who from some central lesion, had not walked for some years. After partial circumcision he could walk with the aid of two canes. A trouble of twelve years' standing had thus been relieved in six weeks.

Dr. Berg in closing the discussion, said that he agreed with Dr. Carr in thinking that rachitic inability to walk is sometimes present without the usual rachitic deformities. He recognized the fact that urinary troubles occur as the result of contracted prepuce, but he had never seen a case of lesion of the nervous centres cured by circumcision. He recalled a case of difficult micturition and inability to walk in a rickety child whose phimosis was not relieved because the operation was refused. The difficulty in micturition persisted, but the child walked within eight weeks after being put upon proper diet.

Excision of Hip-Joint.

Dr. R. H. Sayre presented a little boy on whom Dr. L. H. Sayre had operated by excision of the hip-joint. About a year ago the patient had presented himself with the hip very badly deformed from long-standing disease. The thigh was flexed on the trunk at a right angle, and abducted. A deep abscess was opened behind the trochanter and the acetabulum and femoral head were then found to be badly eroded. The femur was divided above the lesser trochanter, at right angles with the axis of the shaft, and the deformity was thus reduced by excision instead of by simple tenotomy which had been proposed at first. The wound was stuffed with iodoform gauze and after two months of the wire cuirass, a long traction splint was applied and the boy took a long journey to his home. At the present time there is no abduction, and but a trace of flexion with some motion in the joint.

Treatment of Abscesses.

Dr. John Ridlon asked whether an operation would have been advised for the abscess alone. He had found that many abscesses are certain to disappear when the hip is properly treated mechanically.

Dr. Sayre said that as the abscess was causing but little disturbance, he would have postponed operating on it if the child could have been kept under observation.

Dr. Judson thought that opening an abscess, if done at all, should as a rule be followed by excision, as in the case related by Dr. Sayre, on the ground that the presence of diseased bone is a greater evil than the presence of pus. He had seen no bad results follow letting the abscesses alone.

Dr. A. M. Phelps said that there were some cases of abscess which he would probably not open at once, but he believed the operation perfectly harmless and desired to speak emphatically against the opinion that it is a dreadful and a dangerous thing to open these abscesses.

Dr. H. L. Taylor thought that if rest and protection are secured for the joint, the occurrence of abscesses is not of serious import. The aspirator had failed in his hands apparently because it leaves shreds of necrotic tissue which prevent the abscess from closing. It seems wise in most cases to open freely, clean out easily removable débris, and close the wound. If sinuses remain, injections with a saturated solution of iodoform in ether will sometimes cause them to close.

Dr. L. A. Sayre said that on the principle that an empty house is better than a bad tenant, he always evacuates an abscess as soon as found, and by doing this antiseptically, and securing thorough drainage, there is no danger of bad results.

Dr. R. T. Morris said his usual custom is to open these abscesses at once, washing out with peroxide of hydrogen, removing débris, and establishing drainage. He related a recent case in which this procedure, followed by traction in the line of the deformity, had secured a good result. He had recently performed excision in another case in which disease of the acetabulum and femur had been produced by the application by the physician in attendance of traction in a straight line, according to Thomas's method. In excising the hip, he usually makes a section through the great trochanter in such a way as to allow the lesser trochanter to go into the acetabulum and so prevent the formation of a flail joint.

Thomas's Splint.

Dr. Phelps said that Mr. Thomas would treat a case when the leg is flexed at right angles, by lashing the patient to the splint, and then with his wrench bending the splint down as nearly as possible to a straight line. That is a form of traction which produces great intra-articular pressure and would, if continued for any length of time, produce destruction of the joint.

Dr. Ridlon said that he had used Thomas's hip splint in some twelve or fifteen cases with great satisfaction. He found it cheap and easily applied. It had not caused destruction of tissue, but, on the contrary, had relieved symptoms and promoted recovery.

Dr. L. A. Sayre said it seemed as if the profession were determined to misunderstand him, for he had endeavored for years past to make clear what he meant by traction in the line of the deformed limb: it is to make traction in such a way as to separate slightly the bone from the base of the acetabulum, and so prevent pressure, gradually changing the line of traction until the limb is brought parallel with the other limb, and then apply the splint; whereas, if one employed leverage, as Thomas does, this pressure in the joint is only increased. Not until the limb is in proper position can the splint be applied to advantage. One objection to Thomas's splint is that there is no traction for overcoming muscular rigidity, and hence, it seems to be fixation only, and as such does not compare in point of efficiency with a properly applied plaster of Paris splint; for, here the weight of the limb will produce some traction, and the plaster of Paris gives the necessary fixation. Another objection is that the patients wearing Thomas's splint cannot sit down, whereas with a properly applied splint they can sit down with great comfort.

The Question of Excision.

Dr. R. H. Sayre said that in the case presented the original intention had been simply to open and drain the abscess; but the diseased condition of the bones necessitated excision. As regards the condition under which he would advise excision, if the leg were straight and the abscess causing but little disturbance, he would postpone the operation, provided the patient could be kept under observation; but if the latter condition could not be secured, he would be disposed to remove whatever disease already existed rather than allow the case to go from under observation with the disease ready to extend at any time.

Dr. Berg thought the good condition of the patient in the present case justified operative procedure for the correction of deformity.

Dr. Taylor thought that excision might be required in neglected cases, of which there probably always will be a considerable number; but the operation should be looked upon rather as treatment of the results of neglect than as treatment for hip disease.

Dr. Phelps practiced excision by an open wound, leaving the periosteum to reproduce bone. The German surgeons remove the periosteum and capsule and try to secure union by first intention. Their results are shortening, flail joints, and relapses in a large per cent. of cases. He related two recent cases of excision in patients thirty-four and twenty-three years of age. In these cases the femoral head was destroyed and the acetabulum extensively diseased, a condition in which removal of the disease is the most rational treatment. In one of the cases, the head was found separate from the shaft. He had frequently found this condition, and believed that the head lying loose in the joint cavity is to be considered as a foreign body. It is better to remove it than to leave it to undergo decomposition and lead to septicæmia and amyloid disease. In general, he thought excision under the age of ten is a calamity. In the case presented, however, he thought the result was good, as extreme deformity had been corrected.

Dr. Judson thought that in excision we have no certainty of removing, together

with the diseased bone, those portions which contain latent foci. He had found no method of determining whether the focus which has burst into inflammation is the only outbreak to be feared, or whether it is to be followed by others. In some patients a single abscess closes the morbid process; in others, one abscess follows another, showing that osteitis is lighted up successively in the neck, the head, the shaft, and the bones of the pelvis. An excision may fortunately remove all that is diseased, with a good immediate result; or it may leave dormant foci which come into activity one after another, and lead to a tedious and unfavorable result. Ultimate good results are obtained in these difficult cases by management with the hip splint, and without excision.

PERISCOPE.

The Treatment of Sciatica.

It is essential in every case of sciatica to prescribe complete rest of the limb, and most cases, if treated in this way, with the addition of hot linseed-meal poultices along the affected nerve, will soon get well. In the gouty habit, it is also advisable to order saline purgatives and iodide of potassium in five-grain doses, together with a similar amount of antifebrin. Hypodermic injection of morphia or cocain will often give relief to the pain, but have no curative tendency. If there be fulness at any part of the nerve, acupuncture or leeching may be tried; and, failing these, massage and electricity may be used. Galvanism should be used while pain exists, and in the way recommended by Dr. Steavenson, who applies a wet pad, of metal and amadou, connected with the positive pole, over the abdomen, and moves a carbon disc electrode connected with the negative pole gently up and down over the course of the sciatic nerve. Dr. Eccles thinks it not unreasonable to suppose that much of the acute suffering in sciatica is due to the pressure of the abnormally increased fluid within the nerve sheath upon the nervi nervorum; and he suggests that the degeneration of the nerve fibres is due in many cases to the interference with their nutrition by the œdema within and the stagnation without the affected nerve sheath. This theory offers an explanation of the good results which often follow acupuncture, leeching, or massage. Nerve stretching should only be employed as a *dernier ressort;* its chief value probably consists in the release of the nerve from adhesion.—*Medical Chronicle*, Jan., 1890.

London Physicians on the Treatment of La Grippe.

A young lady reporter of the *Pall Mall Gazette* visited several leading London physicians on Jan. 7, and secured prescriptions from them in anticipation of getting the influenza. She told Sir Oscar Clayton she had a sister suffering from it, and felt like getting it. The physician wrote for her the following prescription, assuring her, in answer to her question, that it would do for anybody who has influenza:

℞ Ammon. sesquicarb. . . . . f℥j
Potass. bicarb. . . . . ℥j
Tinc. aurantii . . . . . f℥iv
Aquæ puræ ad. . . . . f℥viij
" flor. aurant. . . . . f℥iij

"You will take this three times a day," said Sir Oscar, "in a tablespoonful of lemon juice. If I were you I should eat two oranges a day. Oranges are an excellent thing in influenza. They keep it from the chest. A very good thing indeed. You may have a little fish or chicken; and have two glasses of port-wine a day made into negus. Take plenty of strengthening food—sago or tapioca pudding. Put your feet in warm water every night, with a teaspoonful of mustard."

Sir Morell Mackenzie advised his patient to go home and get to bed if she felt bad, and he gave her the following prescription:

I.

℞ Potass. nit. . . . . ℥j
Sp. ether. nit. . . . . f℥iv
Liquor ammon. acet. . . . . f℥iss
Aquæ ad. . . . . f℥vj

II.

℞ Tr. quinæ. One teaspoonful in a wineglass of water, twice daily, before meals.

"You will," he said, "take this for four days. No. 2 is a little tonic to take when you get better. No doubt if you are a victim you'll feel a little weak for some time."

"Yes; and about diet?"

"Well, plenty of beef-tea and some milk, and there can be no objection to a little fruit."

Dr. Robson Roose told her he was attend-

ing sixty patients at present—from Cabinet Ministers downwards. Recommending her not to alarm herself, Dr. Roose wrote the following for a mixture to ward off the disease:

℞ Quinæ disulph. . . . . grs. xij
Pot bromid. . . . . ℥iss
Acid. hydrobromic. dil. . . . f℥iss
Tr. aurant. . . . . f℥ss
Aquæ ad. . . . . f℥viij
The eighth part (two tablespoonfuls) twice a day.

The Late Epidemic of Dengue Fever at Smyrna.

The *Lancet*, Jan. 4, 1890, contains the report of the Medical Committee appointed to inquire into the epidemic dengue fever. The symptoms and treatment of the disease are described as follows:

In the great majority of cases the onset of this fever is sudden, without any premonitory symptoms; in a few cases, however, a feeling of malaise lasting twenty-four to forty-eight hours precedes the attack. Ordinarily an individual in good health suddenly has a shivering fit, followed by violent fever and intense headache, the thermometer registering 104° to 105.8° F., the pulse 100 to 120, the face flushed, the eyes bloodshot and painful, with nasal catarrh and sore throat, the tongue large and furred. Nausea and vomiting are common, and sometimes vertigo and delirium. Fainting occurs in old people and hysterical women, whilst præcordial oppression is a frequent symptom. The patient complains of sharp pains shooting over the body, but especially down the back and lower limbs; there is also a general feeling of soreness and great mental and bodily lassitude. An eruption resembling that of scarlatina appears at the same time but is occasionally like erysipelas or urticaria; it is situated on the face, the dorsal surface of the hands and the chest usually, but may cover the entire body. The urine is abundant and clear as a rule, though rarely it is scanty and high colored. No albumin is found, except in cases with renal complications. Constipation is the rule, but diarrhœa occurs, especially when the patient has used purgatives too freely in the early stages. There is a great liability to epistaxis, hematemesis, metrorrhagia, and hematuria, this hemorrhagic tendency being very frequent and remarkable in the epidemic in Smyrna. The initial fever lasts twenty-four to thirty-six hours, and is accompanied by profuse sweating, the perspiration sometimes having a characteristic odor. On the decline of the fever the eruption fades, the pains in the limbs abate and a remission occurs, lasting ordinarily from two to three days; then the fever returns accompanied by a second eruption more confluent, of wider extent and better marked than the first. This eruption lasts several days, even after the disappearance of the fever. There is intolerable itching, followed by desquamation analogous to that of the eruptive fevers. There are cases in which the eruption is entirely absent. During this period some patients complain of acute pains in the smaller joints, and there may be swelling of the hands. In grave cases the initial fever remains for three or four days at about 104° to 105.8° F. The sweating is absent and the eruption slow in appearing. When the fever is prolonged it is noticed that the pulse is not in keeping with the temperature, being too slow, and this characteristic continues during convalescence. Convalescence commences with the cessation of the fever after the second eruption; there is marked loss of appetite, attacks of giddiness, and stiffness of the limbs, in fact patients appear to be recovering from a long and severe illness. Its duration is usually long. It is often observed that an exposure to cold, violent exercise, or errors in diet lead to a fresh attack of fever accompanied by vomiting. Such, in brief, are the clinical features of this disease, the diagnosis of which can only be uncertain at the commencement of the epidemic, for its symptoms so distinguish it from intermittent and eruptive fevers as to leave no room for doubt. Age, sex, and social position do not influence dengue fever, which attacks all classes impartially and spreads with remarkable rapidity. It is estimated that four-fifths of the inhabitants of the town of Smyrna (150,000) were attacked in three months. The prognosis is favorable, being worse among infants and old people and those who are debilitated from any cause. A dozen deaths occurring out of 100,000 cases testify to the benignity of the malady. It is from the complications that the danger of dengue fever arises, the most common being bronchitis, catarrhal pneumonia, uncontrollable vomiting, diarrhœa, intestinal, bronchial, uterine, or vesical hemorrhages. Two cases of myelitis have been observed,

and in one case a pseudo-membranous laryngitis necessitated tracheotomy. Convulsions are common in the early stages in very young children.

The treatment must be: first, to assist the appearance of the eruption; secondly, to attend to the pressing symptoms and complications; and thirdly, to keep up the strength during convalescence. Saline purgatives are useful at first, but must be used with care. Sudorifics generally are indicated. Antipyrin as an analgesic and sudorific has been very advantageously employed; salicylate of soda gives great relief to the pains in the joints, and bromide of potassium has been found of use in nervous troubles. In cases where neither the salicylate of soda nor antipyrin succeeds in subduing the pains, much relief may be got by hypodermic injections of morphia, which also is of undoubted use in checking the sickness. Sulphate of quinine appears only to increase the susceptibility of the gastric mucous membrane. Those complications which are grave each requires its peculiar treatment; but it must be remembered that certain of them, such as hemoptysis, slight hematuria, and exaggerated reflex phenomena, disappear by themselves at the decline of the fever. The diet should be milk and beef-tea with warm drinks during the fever; there are cases, however, in which iced drinks are more suited to soothe the irritability of the stomach. Finally, bitters and tonics may be given during convalescence.

Nitrate of Amyl in Epilepsy.

The following interesting case is reported by Dr. J. E. Engstad, in the *Northwestern Lancet*, for Jan. 15, 1890:

Some time ago, a ten-year-old girl was brought to my office in a state of epileptic convulsion. Her father stated that she had an attack about once a week, and that the convulsive, or second stage, lasted from a few minutes to hours.

She was on a visit in town and had an attack while out walking, "seeing the sights." Any excitement or undue exertion was liable to precipitate an attack. She first suffered from an attack when about three years old, the disease having increased in severity every year. All remedies usually recommended had been given a trial, without any appreciable benefit.

I ordered nitrite of amyl pearls, and explained their use. The pearls were not to be obtained in our city that day, so the druggist substituted nitrite of amyl in bulk, and explained to the father to use one or two drops on a handkerchief for inhalation, instead of a pearl, but the stupid old fellow thought that a rather visionary treatment, and so he gave her, the first time the premonitory symptoms manifested themselves, about one-half a teaspoonful of the amyl nitrite. The poor sufferer had hardly swallowed the dose before her face became purple, eyes staring and general appearance indicating intense suffering. After a short time she became a raving maniac, and had to be restrained to prevent doing herself severe injury. After about ten hours she became calmer and fell into a sleep, or probably a stupor, that lasted until the next day, when she awoke perfectly well.

She has not had a single attack since. That the dose did not instantly kill her has been a mystery to me.

The enormous dose probably produced a nervous impression that effectually eradicated the neurotic disturbance.

Cholera Morbus.

The following formula for cholera morbus, colics, etc., is claimed to be most efficacious:

℞. Spts. ether, comp.,
Spirit ammoniæ aromat.,
M. Chloroformi, āa q s.

Dose—Teaspoonful every half-hour, or every hour, as occasion demands, until relieved. The first dose will usually suffice.

Primary Actinomycosis of the Lungs.

Dr. Lindt, of Königsberg, has reported, in the *Lancet*, Jan. 11, 1890, a case of actinomycosis of the apices of both lungs from the clinic of Professor Lichtheim. The patient, a woman, had had pulmonary symptoms for several months before contracting a severe cough, which induced her to apply at the clinic. The sputa were examined for bacilli, but none were found. An abscess developed in the neck, which was supposed to be connected with the cervical vertebræ. In the course of changing the dressings of this abscess there were discovered in the pus a number of small bodies of about the size of the head of a pin, which set the diagnosis

at rest. These bodies were made up of ray-fungus. It was afterward discovered that the abscess was not connected with the vertebræ, but had its relations through and among the muscles of the neck. Death took place after four months.

The Treatment of the So-called Influenza.

After an extensive experience with the epidemic, Dr. Illingsworth, in the *Med. Press and Circular*, Jan. 15, 1890, claims to have found that an attack may always be cut short in a day by the following mixture:

℞ Liquor ferri perchlor. fort. . . f℥ss
Spirit. etheris nitrosi . . . . . f℥ss
Vin. ipecac. . . . . f℥j
Tinct. opii . . . . . ♏xx
Glycerin. . . . . f℥ss
Aq. ad . . . . . f℥vj
M. Sig. One tablespoonful every two hours.

The patient is left with a slight cough and weakness, curable by iron, sulphuric acid, and opium in ordinary doses.

Iodine as a Remedy for Vomiting.

M. Darthier (*L'Union Médicale*, Dec. 10) bears testimony to the value of tincture of iodine administered internally for the relief of vomiting, a remedy recommended by the late Professor Lasegue in the vomiting of pregnancy. The author had observed its use in nineteen cases, eleven of which were tubercular subjects, and found that it is of more value in the vomiting of early phthisis than in that of the later stages of this disease. At the same time he gives instances of advanced cases with obstinate vomiting where the symptom was largely controlled by the drug. Amongst other cases he gives one of bronchial dilatation (subsequently fatal from acute tuberculosis) in a female, who for three weeks had regularly vomited after every meal. From the date of commencement of the use of the drug she ceased to vomit, and after a week's treatment, which was not productive of any signs of iodism, was completely cured of the symptom. Apart from phthisical vomiting, M. Darthier finds it useful in alcoholic gastritis, in ulcer of the stomach, and in the vomiting of pregnancy and of chlorosis, instances of which are recorded. He says that the majority of the patients take the iodine with pleasure; it often produces an agreeable sense of warmth in the stomach, lasting from five to twenty minutes. The dose is ten drops, dissolved in 125 grammes of water, taken in three portions immediately after meals. In a certain number of cases, symptoms of iodism are produced, chiefly coryza; but a good many patients do not experience any such inconvenience from it.—*Lancet*, Jan. 18, 1890.

Tracheal and Bronchial Stenosis.

Dr. Landgraf brought this subject under the notice of the Society of Medicine of Berlin at a recent meeting. The symptoms were so characteristic that a correct diagnosis was not difficult. Tracheoscopy would assist in localizing the seat of the obstruction, but a case might occur where there were two sites, and the symptom elicited at the seat of the minor obstruction might mask the presence of the major. He had had a patient under treatment, 45 years of age, who had contracted syphilis at the age of 25. In 1870 he lost a leg below the knee, married, and had four healthy children. In 1880, after having shown symptoms of syphilis, he became hoarse and had suffocating attacks, in the course of which he was tracheotomized. After he had worn the canula a long time, in order to get rid of it, he entered the Charité Hospital of Berlin. Laryngoscopic examination showed that the epiglottis was attached to the posterior of the fauces. The vocal cords formed an acute angle, a grayish red mass was visible in the triangular space. The patient died, and the autopsy showed an annular stricture reaching from the cords to the first tracheal ring. Half of the cricoid cartilage was absent. In the lower part of the trachea and in the bronchi were cicatricial ulcers, in right bronchus was a fetid piece of cartilage, plainly the missing half of the cricoid.

Struma was a prominent cause of stenosis. Goîtres compressed the trachea, while new growths broke through it. The diagnosis was more difficult when tumors formed by the mediastinal glands were the cause. A case of this kind occurred in a soldier, who was admitted into hospital with symptoms of laryngeal and bronchial catarrh. The left supra-clavicular glands were enlarged, then the left inguinal glands became so, and after a period of comparative health, suffocative attacks came on. The presence of the en-

larged glands gave the clue to the correct diagnosis. According to military statistics, and his own observation, mediastinal tumors more frequently led to compression of the trachea than was believed generally. Other causes were aneurism of the aorta, diseases of the pericardium, the sternum, the vertebral column, syphilis, etc. Hysteria might lead to the symptoms of stenosis, as in the case of a man who presented the typical signs of it. Sounds were introduced into the trachea and bronchi, nothing was found and the man recovered after four applications of the instrument. There had been no return of the tracheal trouble.—*Med. Press and Circular*, Jan. 15, 1890.

Waxy Concretions in the Ear.

The following formula is proposed in *La Clinique* for a preparation to aid in removing accumulations of wax in the external auditory meatus:

Boric acid	1 dram.
Glycerin	1½ fl. ozs.
Distilled water	1½ fl. ozs.

This should be warmed and instilled into the ear, leaving it there for a quarter of an hour, repeating the process daily for several days. The result is to soften the plugs and make their removal comparatively easy by means of the syringe.—*Druggist's Circular*, February, 1890.

Traumatic Iridodialysis.

Cases of the above-mentioned trouble are sufficiently rare to warrant the presentation of the notes of a case recently under the care of Dr. John C. Bowker, and reported in the *Medical Record*, Jan. 25, 1890. The patient, a highly intelligent lad of eight years, was playing with his comrades when he felt something strike his left eye, followed by a sharp pain. He was immediately seen by a physician, who prescribed for him and sent him home. Two days later the father took the case into his own hands and, in examining the eye, found a leaden bullet, weighing eight and a half grains, snugly packed away between the ocular and palpebral conjunctivæ, at the external canthus. This was removed, and when the boy was brought to me there was but a slight conjunctivitis, ciliary injection, and photophobia, together with a rent in the iris, covering probably five or six square millimetres, through which the red reflex was visible. The rupture was at the inferior external quadrant and about two millimetres of the ragged edge of the iris remained along the ciliary margin. The contraction of the iris threw the normal pupil into an irregular oval shape. Vision in the affected eye was 0.6, but through the artificial pupil light alone was distinguishable. The cornea was entirely uninjured and no abrasion could be detected even with a high-power lens. Though the false pupil still exists, the troublesome symptoms have, under treatment, wholly disappeared. The fundus is normal, the capsule seems unaffected, and the lad suffers almost no inconvenience, save from the disfigurement, which is slight.

Infantile Colic.

The following prescription is recommended by Dr. Bedford Brown, in the *Canada Med. Record*, Feb., 1890:

℞ Ol. terebinthinæ . . . . . f℥j
Chloroformi . . . . . gtt. x.
Sodæ bicarb. . . . . gr. x.
Mucilag. acaciæ ad . . . . . f℥iij.
M. S. f℥j every two or three hours for a child six months old.

Solvine.

Solvine is the name of a new substance formed by mixing sulphuric acid and castor-oil, removing the excess of acid, dissolving the residue in water, and treating a precipitate, which gradually falls, with a mineral acid. The resultant liquid is of a clear yellow color and of an oleaginous consistence. The substance possesses very marked solvent properties, and passes readily through animal and vegetable membranes, being therefore absorbable by the skin. It is said to dissolve the red blood-globules when injected hypodermically, and is thus not to be regarded as a very safe substance for use in ointments. Indeed very pronounced toxic symptoms are reported to have followed the application of a solution of naphthol and solvine to the mucous membrane. Berlioz, who presented the substance at a recent meeting of the Therapeutical Society, in Paris, proposed to call it sulphoricinic acid.—*Medical Record*, Feb. 1, 1890.

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HYDERABAD CHLOROFORM COMMISSION.

One of the most important and satisfactory series of investigations in the province of medicine, is that which has recently been completed by the Hyderabad Chloroform Commission. The Commission owed its existence to Surgeon-Major Lawrie's veneration for his late teacher, Professor Syme, and his desire to prove the correctness of Syme's teaching that chloroform might be administered with perfect safety, provided that the administrator watched the respiration with sufficient care. Accordingly, some time ago, at Dr. Lawrie's suggestion, the Nizam's Government appointed a Commission, which conducted a series of experiments, and arrived at the conclusion that chloroform always arrests the respiration before the heart. But the facts brought forward seemed insufficient to overthrow the conclusions of many observers both in Europe and elsewhere, whose researches seemed to prove that one of the dangers from chloroform was paralysis of the heart.

Dr. Lawrie, therefore, proposed a second commission, to which the London *Lancet* should send a representative, and for this purpose the Nizam's Government generously offered the sum of £1,000. As our readers already know, the *Lancet* selected Dr. Lauder Brunton, and, on his arrival at Hyderabad on Oct. 22, 1889, a second commission was immediately formed, consisting of Surgeon-Major Lawrie as President, and Drs. Lauder Brunton, Bomford and Rustomji as members. Their complete report appeared in the *Lancet* for Jan. 18, 1890.

The experiments were of two kinds, those of one group being made without recording apparatus, and being intended to ascertain what influence is exerted by various conditions upon the relation between the stoppage of heart and of respiration, and the limits within which artificial respiration and other means of resuscitation are useful. The second group consisted of experiments with recording apparatus, and were made for the purpose of ascertaining the effect of various conditions upon the heart and blood pressure. In the first group chloroform was given in all sorts of ways, alone or with morphine, atropine, and strychnine, to animals healthy and diseased, fasting or replete. The result was invariable: in every case the respiration stopped before the heart, sometimes a long time before it. But the effect of partial asphyxia in causing the heart to stop very soon after the respiration is deserving of particular notice.

The second group of experiments on heart and blood pressure was made with apparatus arranged in such a way that the whole experiment could be recorded from beginning to end in such a compass as to admit of photographic reproductions in its entirety. This was managed by recording the general blood pressure on a slowly revolving drum,

and taking at intervals a tracing on a second drum, revolving with sufficient rapidity to show each beat of the pulse. About one hundred and fifty experiments were made in this way, and the influence of everything that seemed likely to affect the blood pressure during chloroform narcosis was ascertained. Particular attention was directed to the production of shock or syncope, and to the effect of chloroform itself on the heart and blood-pressure in healthy animals, and also in cases where fatty degeneration of the heart and other organs had been produced by the previous administration of phosphorus. The results of these experiments were unexpected. It was found to be exceedingly difficult to affect the heart reflexly, and recourse was therefore had to direct stimulation of the vagus, by which the heart could be slowed or stopped completely. Instead of this causing the death of the animal, however, it appeared rather to be a safeguard, preventing the anæsthetic from being conveyed in too great quantities to the nerve centres.

In the *Lancet's* note to one of Dr. Brunton's telegrams, and referred to in the REPORTER, Jan. 4, 1890, the change which his views had undergone was called attention to. From the present report it may, however, be seen that the discrepancy between the views of different schools arises from the fact that sufficient consideration has not been given to the conditions under which the chloroform is given. Although it may paralyze the heart if applied directly to it, yet this condition does not occur in practice, for here it is neither applied to that organ nor yet is it blown forcibly into the lungs. It is inhaled by the patient, and when this is the case it stops the respiration before the heart. The practical outcome of the research would appear to be that deaths from chloroform are not inevitable. They are, therefore, preventable, and by due care in its administration they may be with certainty avoided. The conclusions of the Commission are sweeping, and without abundant evidence cannot be accepted. Fortunately the generosity of the Nizam's Government has not been limited to the appointment and payment of the Commission, but by well-timed liberality it has secured the permanent utility of the work done by it, for it has had every tracing photographically reproduced, and will present a copy of the complete work to all the principal medical libraries throughout the world.

The following are the practical conclusions which the Commission think may fairly be deduced from the experiments recorded in their report:

I. The recumbent position on the back and absolute freedom of respiration are essential.

II. If during an operation the recumbent position on the back cannot, from any cause, be maintained during chloroform administration, the utmost attention to the respiration is necessary to prevent asphyxia or an overdose. If there is any doubt whatever about the state of respiration, the patient should be at once restored to the recumbent position on the back.

III. To ensure absolute freedom of respiration, tight clothing of every kind, either on the neck, chest or abdomen, is to be strictly avoided; and no assistants or bystanders should be allowed to exert pressure on any part of the patient's thorax or abdomen, even though the patient be struggling violently. If the struggling does occur, it is always possible to hold the patient down by pressure on the shoulders, pelvis, or legs without doing anything which can by any possibility interfere with the free movements of respiration.

IV. An apparatus is not essential, and ought not to be used, as, being made to fit the face, it must tend to produce a certain amount of asphyxia. Moreover, it is apt to take up part of the attention which is required elsewhere. In short, no matter how it is made, it introduces an element of danger into the administration. A convenient form of inhaler is an open cone or

cap with a little absorbent cotton inside at the apex.

V. At the commencement of inhalation care should be taken, by not holding the cap too close over the mouth and nose, to avoid exciting, struggling, or holding the breath. If struggling or holding the breath do occur, great care is necessary to avoid an over-dose during the deep inspirations which follow. When quiet breathing is ensured as the patient begins to go over, there is no reason why the inhaler should not be applied close to the face; and all that is then necessary is to watch the cornea and to see that the respiration is not interfered with.

VI. In children, crying ensures free admission of chloroform into the lungs; but as struggling and holding the breath can hardly be avoided, and one or two whiffs of chloroform may be sufficient to produce complete insensibility, children should always be allowed to inhale a little fresh air during the first deep inspirations which follow. In any struggling persons, but especially in children, it is essential to remove the inhaler after the first or second deep inspiration, as enough chloroform may have been inhaled to produce deep anæsthesia, and this may only appear, or may deepen, after the chloroform is stopped. Struggling is best avoided in adults by making them blow out hard after each inspiration during the inhalation.

VII. The patient is, as a rule, anæsthetized and ready for the operation to be commenced when unconscious winking is no longer produced by touching the surface of the eye with the tip of the finger. The anæsthetic should never under any circumstances be pushed till the respiration stops; but when once the cornea is insensitive, the patient should be kept gently under by occasional inhalations, and not be allowed to come out and renew the stage of struggling and resistance.

VIII. As a rule, no operation should be commenced until the patient is fully under the influence of the anæsthetic, so as to avoid all chance of death from surgical shock or fright.

IX. The administrator should be guided as to the effect entirely by the respiration. His only object, while producing anæsthesia, is to see that the respiration is not interfered with.

X. If possible, the patient's chest and abdomen should be exposed during chloroform inhalation, so that the respiratory movements can be seen by the administrator. If anything interferes with the respiration in any way, however slightly, even if this occurs at the very commencement of the administration, if breath is held, or if there is stertor, the inhalation should be stopped until the breathing is natural again. This may sometimes create delay and inconvenience with inexperienced administrators, but experience will make any administrator so familiar with the respiratory functions under chloroform that he will in a short time know almost by intuition whether anything is going wrong, and be able to put it right without delay before any danger arises.

XI. If the breathing becomes embarrassed, the lower jaw should be pulled, or pushed from behind the angles, forward, so that the lower teeth protrude in front of the upper. This raises the epiglottis and frees the larynx. At the same time it is well to assist the respiration artificially until the embarrassment passes off.

XII. If by any accident the respiration stops, artificial respiration should be commenced at once, while an assistant lowers the head and draws forward the tongue with catch-forceps, by Howard's method, assisted by compression and relaxation of the thoracic walls. Artificial respiration should be continued until there is no doubt whatever that natural respiration is completely re-established.

XIII. A small dose of morphia may be injected subcutaneously before chloroform inhalation, as it helps to keep the patient in a state of anæsthesia in prolonged opera-

tions. There is nothing to show that atropine does any good in connection with the administration of chloroform, and it may do a very great deal of harm.

XIV. Alcohol may be given with advantage before operations under chloroform, provided it does not cause excitement, and merely has the effect of giving a patient confidence and steadying the circulation.

The Commission has no doubt whatever that, if the above rules be followed, chloroform may be given in any case requiring an operation with perfect ease and absolute safety so as to do good without the risk of evil.

Notes and Comments.

A Curious Hypnotic Test.

Dr. J. M. Charcot writes in the January *Forum*:

"The end I have ever held before my eyes, then, and which I hope I have never lost from view, is this: To study the hypnotic phenomena according to a strictly scientific method, and for this purpose to employ processes, purely physical and which can always be compared with one another, so that the results obtained by me may be rigorously tested by all observers who shall use the same processes under the same conditions.

"Take one example from among a thousand. I present to a woman patient in the hypnotic state a blank leaf of paper and say to her: 'Here is my portrait; what do you think of it? Is it a good likeness?' After a few moments' hesitation, she answers: 'Yes, indeed, your photograph; will you give it to me?' To impress deeply in the mind of the subject this imaginary portrait, I point with my finger toward one of the four sides of the square leaf of paper, and tell her that my profile looks in that direction; I describe my clothing. The image being now fixed in her mind I take that leaf of paper and mix it with a score of other leaves precisely like it. I then hand the whole pack to the patient, bidding her to go over them and let me know whether she finds among these anything she has seen before. She begins to look at the leaves one after another, and as soon as her eyes fall upon the one first shown to her (I had made upon it a mark that she could not discern), forthwith she exclaims: 'Look, your portrait!' What is more curious still, if I turn the leaf upside down, as soon as her eyes rest upon it she turns it over, saying that my photograph is on the obverse. I then convey to her the order that she shall continue to see the portrait on the blank paper even after the hypnosis has passed. Then I awaken her and again hand to her the pack of papers, requesting her to look over them. She handles them just as before when she was hypnotized, and utters the same exclamation: 'Look, your portrait!' If now I tell her she may retire she returns to her dormitory, and her first care will be to show to her companions the photograph I have given her. Of course, her companions, not having received the suggestion, will see only a blank leaf of paper without any trace whatever of a portrait; and will laugh at our subject and treat her as a visionary. Furthermore, this suggestion, this hallucination, will, if I wish, continue several days; all I have to do is to express the wish to the patient before awakening her.

"The foregoing experiments have been made hundreds of times by me and by others, and the fact can easily be substantiated; their objectivity is as complete as could be wished in researches of this kind. Hypnotism is directly amenable to our means of investigation, and must needs be an integral part of the known domain of science. To that goal our efforts ought to be directed."—*Boston Med. and Surg. Journal*, Jan. 23, 1890.

Blood Poisoning from a Glove.

A somewhat sensational paragraph has appeared in a London lay paper relating to the death of a lady which is said to have been due to blood poisoning derived from a glove. The facts, as stated, are as follows: A young Jewess from Kieff was visiting her friends in the Polish capital, who, in honor of her visit, gave a large ball. The young lady, well known for her beauty and other attractions, purchased for the occasion a pair of long Danish gloves. While in the middle of a dance she suddenly felt a severe pain in her left wrist, which rapidly became inflamed and swollen. Upon reflection she remembered to have slightly pricked the wrist with a pin while making her toilet. Subsequently medical examination showed that the young lady was suffering from car-

buncle and blood poisoning, contracted from the glove. The medical men in attendance expressed their conviction that the glove had been made from the skin of an animal suffering from anthrax. Within forty-eight hours their unfortunate patient was dead. The rapidity of the devolpment of the symptoms is not the least remarkable feature in this case; we do not question the theory which has been advanced to account for the attack; it is a quite possible one, though without corroborative evidence it sounds just a little transcendental. In view of the process through which "skins" have to pass before being cut up into gloves, a perfectly disinterested person can only feel some admiration for the robustness of the individual microbes whose tenacity of life and purpose enabled them at the proper moment to give expression to their malignity. —*Med. Press and Circular*, Jan. 8, 1890.

Society for Psychical Research.

The American Society for Psychical Research, after existing for five years, with its headquarters in Boston, and publishing some six hundred pages of "Proceedings," at last, for pecuniary reasons, terminated its corporate existence on Jan. 14. The English society of the same name is heir to its documentary possessions, and is to keep Dr. Richard Hodgson, late secretary of the American society, as its own secretary in America. A majority of the associates of the American society have joined the English society, forming the nucleus of an American branch. Professors S. P. Langley of Washington, H. P. Bowditch of Boston, and W. James of Cambridge, are appointed vice-presidents of the Society for Psychical Research in America; but, apart from their advisory functions, there is no "organization" here,—a circumstance which will doubtless contribute to economy and efficiency of work.—*Science*, Jan. 24, 1890.

Intimations of Approaching Death.

A correspondent to the *Lancet*, Jan. 11, 1890, referring to the absence of the Emperor of Brazil from the Empress's deathbed, reflects in severe terms on what is alleged to be the rule of the profession in Portugal, and of all the Latin races, of withholding clear intimations of approaching death till it is too late for the dying patient or his friends to express their last sentiments to each other, or for the patient to realize his position. This is a matter on which the finest moral and professional judgment is needed. We disapprove the tendency of some to add to the horrors of death by preachments of a doubtful and gloomy character. But it is right that proper intimation should be given to all concerned when the result is inevitable. It would not be right to blame the Empress's physicians without knowing more of the facts.

Eau Dentifrice.

The following is indistinguishable from the well-known *Eau Dentifrice de Dr. Pierre*:

℞ English oil of peppermint . . . . . ♏ lx
Oil of aniseed . . . . . ♏ xc
Oil of cloves . . . . . ♏ xc
Oil of cinnamon . . . . . ♏ xv
Rectified spirit . . . . . f ℥ xx
Saffron . . . . . gr. x

Macerate a week, and filter.

—*National Druggist*, Jan., 1890.

Bacteriology of Influenza.

Those who have followed the character and spread of the present epidemic on the Continent and in this country must, no doubt, have come to the conclusion that, like other epidemic diseases, influenza is spread by contagium, and must be due to a living organism, a microbe. The discovery of this has been announced from Vienna. Some of the daily papers, on Wednesday of this week, brought the news that the microbe of influenza has been identified, by Drs. Maxamilian and Jolles, working in the Vienna Bacteriological Laboratory under Professor Weichselbaum. It is stated briefly that this microbe is similar to, but not identical with, the microbe of croupous pneumonia. Weichselbaum has, independently of Fränkel, of Berlin, shown that genuine croupous or fibrinous pneumonia is due, not to the bacillus of Friedländer, but to a capsulated diplococcus—the diplococcus pneumoniæ—having special morphological and cultural characters. The discovery of the influenza microbe, coming from such a distinguished and reliable source, deserves in

itself careful attention, and this is enhanced by the fact that in the influenza of the present epidemic, some kind of pulmonary distemper is one of the conspicuous symptoms; and this, though generally mild and of the character of a slight bronchial catarrh, has yet proved fatal in a certain percentage of cases, terminating as severe pneumonia. On the other hand, it is necessary to bear in mind that in these fatal cases the pneumonia is not of the same nature in all cases; the *post-mortem* examination shows it to be in some instances of the character of severe catarrhal or broncho-pneumonia, while in others it is more of the nature of fibrinous pneumonia. Further, it is to be remembered that, except in these fatal cases, the disease itself in its course and symptoms has no more similarity to croupous pneumonia than to typhoid fever, and that the pneumonia, when present, is always of the nature of a secondary complication, supervening on previous pulmonary weakness (age, previous disease, or a chill caught during convalescence from the primary influenza). It is, however, premature to make any further remarks about the matter until all the details concerning the microbe and the evidence as to its claims to be regarded as the microbe of influenza are made known.—*British Med. Journal*, Jan. 25, 1890.

Cholera in Mesopotamia.

There seems to be little doubt of the advance of cholera in Asia Minor, and therefore of the increasing probability of its invading Europe. Intelligence has just been received from Bassorah stating that 3,000 fatal cases had occurred there, including the English Vice-Consul, Mr. Robertson, and two of his children.—*Lancet*, Jan. 25, 1890.

Ovarian Pregnancy.

The possibility of ovarian pregnancy is stoutly denied by many authorities, such as Mr. Lawson Tait, whilst others, including Freund, declare that such a variety of ectopic gestation really exists. Freund's evidence rests upon cases where he performed abdominal section; but pregnancy was advanced, and the primary relations of a fetal sac cannot, under the circumstances, be determined with accuracy. A sac in the midst of a Fallopian tube is visible to the naked eye; we can all see specimens of this condition and believe. In order to believe likewise in ovarian gestation a specimen in the earlier stages, where the primary relation of the fetal sac to the ovary is evident, must be demonstrated. Such a specimen is, to say the least, very rare in museums. The Russian *Journal of Obstetrics and Gynæcology*, No. 6, 1889, contains a record of an alleged case of ovarian pregnancy. A woman, aged 27, became pregnant in October, 1887, but labor never came on, and in September, 1888, she was seized with severe fever. A suppurating ectopic gestation sac was diagnosed and laid open. The fetus, which was macerated and had attained the normal size at term, was extracted. Urine and feces came away from the cavity of the sac. During recovery the patient was seized with neuritis multiplex, and removed to a ward for lunatics, where she died seven weeks after the operation. A necropsy was performed. The left ovary was found to be rather smaller than normal; the left tube stretched, pervious, and not dilated. The fetal sac was connected with the left ovary, and its outer wall was found to be, in the opinion of Dr. Muratoff, who reported the case, a continuation of the tunica albuginea of the ovary. Dr. Reimann, of Kieff, in commenting on Dr. Muratoff's interpretation of the case, in the *Centralblatt für Gynäkologie*, December 28, 1889, displays a wholesome scepticism. The sac was probably tubo-ovarian, and had become detached from its tubal connections.—*British Med. Journal*, Jan. 25, 1890.

Cocoa-Nut Butter.

Cocoa-nut butter is now being made at Mannheim, and, according to the American Consul there, the demand for it is steadily increasing. The method of manufacture was discovered by Dr. Schlunk, a practical chemist in Ludwigshafen. Liebig and Fresenius knew the value of cocoa-nut oil or fat, but did not succeed in producing it as a substitute for butter. The new butter is of a clear whitish color, melts at from 26° to 28° C., and contains 0.0008 per cent. water, 0.006 per cent. mineral stuffs, and 99.9932 per cent. fat. At present it is chiefly used in hospitals and other State institutions, but it is also rapidly finding its way into houses or homes where people are too poor to buy butter. The working classes are taking to

it instead of the oleomargarines, against which so much has been said during the last two or three years.—*Science*, Jan. 10, 1890.

Spiritualism and Insanity.

Testators would do well to control or disguise spiritualistic tendencies, for their exhibition in any marked degree opens the door to litigation by disappointed heirs after their death. Such an action is now pending in France, and there will doubtless be a conflict of expert testimony as to the significance of a belief in the manifestations of spiritualism in relation to the sanity of the individual testator. The question, of course, must turn on the details in this particular case, for unless a belief in the supernatural is to be accepted *per se* as evidence of insanity—a doctrine somewhat in advance of the times—a leaning in the direction of spiritualism has nothing in it to stamp any one as insane. It is extravagance in belief, and not belief itself, which reveals the flaw, and this holds good whether the extravagant belief be orthodox or heterodox. Ultra-spiritualistic tendencies only constitute a variety of religious mania, and require the same proof to disqualify their possessor for testamentary disposition. Most of us are familiar enough with persons who exhibit a strange susceptibility in this direction without entailing the slightest disability in other departments of daily life.—*Med. Press and Circular*, Jan. 15, 1890.

Turfa.

The United States Consul at Bahia describes a substance called turfa, lately discovered in Brazil, at a place called Maratiu, about sixty miles south of Bahia. Turfa has been found to contain the main ingredient now extracted from it by distillation, viz., petroleum, or, as it is locally called, "brazolina" or "petroleo nacionale," besides paraffine, gasoline, and lubricating-oils resulting from the process. A company was formed, and the concession purchased. Machinery has been imported from England, and from four hundred to four hundred and fifty hands are employed at the mines. The company, it is stated, will manufacture fifty tons of candles per month; and if the enterprise should prove a success, it will probably interfere with the trade in kerosene, candles, and lubricating-oils which the United States now has with Brazil and with the countries south of Brazil.—*Science*, Jan., 1890.

Women Doctors in Germany.

An association of German ladies, at a meeting a short time ago, passed a resolution agreeing to a petition being presented to the divers German governments, praying for permission to be granted to women to study medicine. The petition so far has been flatly refused by Prussia, Wurtemburg, Saxony, the Duchies of Hesse-Darmstadt, and Saxe-Weimar. This is not surprising in view of the hyper-congested condition of the medical profession in the fatherland. The States may be expected to know what is best for themselves.—*Med. Press and Circular*, Jan. 15, 1890.

What the British Soldier Eats.

In an article on the Standing Army of Great Britain, in *Harper's Magazine*, Feb., 1890, General Wolseley says that the pay of a private soldier of a line infantry regiment—which is the smallest man's rate of pay in the army—is one shilling per diem. In addition to his pay he receives a daily ration of three-quarters of a pound of meat and one pound of white bread. During peace everything else he requires as food he has to purchase from his daily pay. When on active service he is well fed free of all charge.

In addition to the daily rations, every company mess purchases tea, sugar, milk, vegetables, etc., at a daily cost of about 3½*d.* to each man. Most men also buy in their canteens beer, hot sausages, butter, jam, and other luxuries. In his recreation-room the soldier can be served at all hours with good tea, coffee, bread and butter, etc.

Death from Cayenne Pepper.

A lad living at Bacup, England, complained of a cold and his mother gave him a dose of a mixture which contained a quantity of cayenne pepper. A few minutes afterwards he was found on his knees gasping for breath, and after struggling for several minutes he expired. The physician who was called decided that death was caused by the action of the pepper on a weak heart.—*Druggist's Circular*, Feb., 1890.

NEWS.

—The Department of Public Works of Munich, Germany, is about to erect a crematory in that city.

—"La grippe" is raging in Yucatan. In the City of Merida there are from six to eight deaths from this cause daily.

—The well-known authority on pædiatrics, Dr. v. Dusch, of Heidelberg, died of the influenza on January 13, 1890.

—According to the last report of the State Board of Health of Michigan, the influenza is still on the increase there.

—The Board of Health of Newport, R. I., estimated that up to Jan. 16 fully 15,000 cases of the influenza had occurred in that city.

—Dr. v. Bergmann has been appointed to fill the late Dr. v. Volkmann's place on the editorial staff of the *Centralblatt für Chirurgie.*

—The insane asylum at Worcester, Mass., caught fire on the night of Jan. 19th. All the patients were safely rescued. Damage, $6,000.

—The cholera continues to increase in Mesopotamia. The Ottoman Government are taking most active measures to prevent an invasion of the disease in its provinces.

—Recent statistics show that Austria contains only one hundred and eighteen homœopathists, and only forty-four of these profess to practice homœopathy exclusively.

—The *Centralblatt für Nervenheilkunde* has ceased to exist on account of the retirement of its editor, Dr. Erlenmeyer, who has published the journal for the last twelve years.

—Dr. Germain Sée is the editor of a new Parisian medical weekly journal, called *La Médicine moderne*, which will be largely devoted to the reports of important scientific societies.

—The Medical Society of the State of New York will hold its annual meeting at Albany, on Feb. 4, 5, and 6, under the Presidency of Dr. Daniel Lewis, of New York. Over fifty papers are to be presented.

—A society with the title of "The Metropolitan Medical Society" has recently been organized in New York, and will hold its meetings at the residence of members on the first and third Thursdays of each month.

—Dr. H. R. Wharton, who was elected by the Board of Charities and Correction a member of the staff of surgeons at the Philadelphia Hospital in place of Dr. J. William White, has refused to accept the position.

—The dengue fever, recently epidemic in Smyrna, has reached Spain, and has assumed a very malignant character in Madrid, Barcelona, and Seville. The deaths in Madrid, from the disease, have numbered 200 in one day.

—Dr. Benjamin Fearing, of Wareham, Mass., died suddenly on the night of Jan. 23, 1890. Dr. Fearing was a native of Wareham, and well known for his benevolence and generousness. He was an old friend of the REPORTER.

—Some four hundred of the physicians of Brooklyn have formed a protective association for the purpose of avoiding bad debts, and have published for their own information a black-list of persons who can, but do not, pay their doctor's bills.

—There were 717 deaths in Vienna during the week ending January 4, 1890, 253 more than the corresponding week of the previous year. According to the *Wiener Med. Presse*, the great increase of deaths was largely due to the prevalency of the influenza, a very large proportion being from inflammations of the respiratory organs.

—The International Committee at Geneva of the Red Cross Society have under consideration a proposal for permanently commemorating the great good which the late Empress Augusta accomplished by promoting the principles of the Red Cross and improving the methods of carrying on the work of the Red Cross Societies.

—The announcement is made that a London lady has taken up the labors of Father Damien and will go to Molokai to work among the lepers. She is Amy Fowler, daughter of Chaplain Fowler, of the Bath workhouse, London. Miss Fowler studied medicine under Pasteur in Paris. She is twenty-seven years old, and goes to the lepers under the name of Sister Rose Gertrude.

—A remarkable accident occurred at Newburgh, January 20th, by which a horse and man were severely injured and another man was killed by electricity. In this case neither the horse nor either of the men was even in contact with the wire that carried the fatal current. The current was diverted from the wire, the insulation of which had become impaired, by an iron awning post, which the horse, who was tied to it, touched with his nose. In going to his rescue the man who was killed also touched the post, but the man who was injured simply touched the body of the other.

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Clinical Lectures.

PEDICULOSIS.—ANASARCA.[1]

BY DR. CHARLES G. STOCKTON,

BUFFALO, N. Y.

Pediculosis.

Here is a patient who has spots of marked pigmentation all over his body. Wherever he has been able to reach he has scratched himself, and the continued scratching has given rise to the pigmentation. This is a very good example of pediculosis corporis. There are three forms of pediculosis: that which affects the scalp, that which infests the body, and that which is found in the hairy parts of the body other than the scalp. The three forms of the pediculus are known as the head-louse, the body-louse, and the crab-louse; and they seem to be distinct. The ova of the head-louse are deposited along the roots of the hair of the scalp, where they germinate. The pediculus corporis is found only on the body. It does not burrow into the skin, but draws blood from the body through a kind of proboscis. It sucks blood so greedily that its color is changed in the act from a yellowish white to a yellowish red. This insect is two or three millimeters long, has six hairy legs and a long, sharp snout. When the clothing is removed, nothing is found on the body, because the animal has retreated into the seams of the garments. In this, the pediculus corporis differs from the head-louse and the crab-louse. This last is found in the hair of the pubes or arm-pits, or sometimes in the hair over the sternum or even in the eyebrows.

You can recognize pediculosis by the mottled eruptions and particularly the scratch-marks. The diagnosis is confirmed by searching the garments. The cure for

[1] Delivered at the Buffalo General Hospital.

this disease is cleanliness. It is not sufficient merely to take a bath and put on the same old clothes again; these must be got rid of or boiled, preferably in an antiseptic solution. Then use some soothing application for the skin.

Anasarca.

This man came before you a week ago, when we had the opportunity of studying him from the standpoint of anemia. His anemia came about largely from the loss of albumin and also from interference with nutrition by indigestion and malassimilation due to the disease from which he suffers.

He has been sick seven years. He took cold and had pain in the back, his feet and then his whole body became swollen. Two years later, he began to have persistent headache and occasional dizziness. His eyesight became so indistinct that he could not count his own fingers; it is now much clearer. His appetite is capricious, and his bowels usually constipated. He feels better when his bowels are open and when he sweats. His urine is irregular in quantity.

He is pale and has a muddy skin. A clear sclerotic is usually a sign of health; if it is pearly it suggests tuberculosis. In this case it is somewhat jaundiced. The man's tongue is pale, a little tremulous, covered with a thin yellowish-white coat, which seems to involve the epithelium, but is not very closely attached to the tongue itself. When I first felt his pulse, I made the snap diagnosis that he had a kidney lesion, and that he was passing a large quantity of urine with not much albumin but with hyaline and granular casts. I was right, except in saying that he passed uniformly a large amount of water; for it is sometimes large, sometimes small. What was it about his pulse that led me to think he had kidney disease? He had the "whip-cord" artery, so that a continuous ridge could be felt along the radial vessel, and that indicated a thickening of the vessel walls. It was not compressible in the sense that the ridge could be made to disappear, though the blood could be pressed out of the artery. I knew that we had a case of endarteritis, involving the intima, perhaps the media, and possibly the adventitia. The pulse was a *pulsus tardus*, a slow, dragging pulse of high arterial tension. The one thing that is most likely to produce both these conditions is a certain form of kidney disease, and so I flew to my diagnosis and I came pretty near being right.

The man is 27 years old, a laborer, and married; he has always been temperate, has used tobacco to some extent, never had gravel nor scarlet fever, and was never sick before this disease.

On inspection of the body, we notice the same muddy skin. The abdomen is prominent, and we get the ascitic wave. There is a certain amount of œdema of the back, feet, and legs, and the nutrition of the skin is depressed, as it always is after œdema. The skin is rough, and there are lines of tension, it is a little like fish-skin. When the bowels are regular, the patient tells us, the feet are smaller; when they are constipated, the feet become larger.

We have to do, then, with a case of general anasarca which includes the ascites, the dropsy of the legs, feet, and back, and the œdema under the eyes and about the temples which he formerly had. Notice the relation between the bowels, skin, and kidneys. The kidneys are not able to carry off the fluids of the body as they should, and, therefore, a certain amount of labor must be taken from them by the bowels and skin. When the bowels and skin lend themselves to this task, the fluids are carried off and the man feels well. When they are not able to work, not only water but urea and ten thousand other things, some of which we know and some of which we do not know, accumulate in the body. Remember, it is not merely urea that is present when we say there is uremic poisoning. Most of the essential oils, arsenic and other metals and alkaloids, are carried off in the urine. The alkaloids produced in the body are normally so disposed of, and if they accumulate we have signs of poisoning such as headache, faintness, dizziness, vomiting, and a peculiar malaise and weakness which occur in the history of Bright's disease.

Let us study the relation between the arteries, the heart, and the kidneys. In Bright's disease we may have an exudation of serum into the abdomen, the pericardium, the pleural cavities, often into the scrotum and the tissues of the prepuce, and sometimes between the meninges of the brain. This last is necessarily rare because of the usual upright position of the patient. We will examine to see if he has fluid in any of the great cavities of the body besides the peritoneum. The apex-beat of the heart is on a vertical line with the nipple and two

inches below it. Thus, the apex is carried to the left, and this must be the result of one of two things, either a lateral displacement or an enlargement of the heart. If the heart is enlarged at all, I judge that the left ventricle must be the one that is enlarged, for the apex-beat is heard clearly in its normal position, whereas, if the right ventricle were enlarged, it would lap over this place so that the first-heard sound would be heard clearly only at the extreme left edge of the visible apex-beat. Moreover, the heart does not appear to extend much beyond the right border of the sternum. I hear a murmur with the systole of the heart at the apex, and I hear it nowhere else with so great intensity. I also hear a remarkably intense accentuation of the second sound of the heart to the right of the sternum; whereas, at the left intercostal space, there is only a moderate accentuation. This signifies that there is an enlarged, left ventricle, and that from the increased force of the blood-current and the consequent rise of arterial tension, we have a forcible closing of the aortic valves on account of the powerful back flow of the blood. This accentuation of the second sound is one of the most important signs in the study of heart disease. If it were more marked along the left border of the sternum, I would say it was due to the backing up of blood from the left ventricle into the left auricle, and from that into the right ventricle, which would cause an accentuation of the closure of the pulmonary semilunar valves.

Here we have diseased arteries, a pulse of high tension, a strongly-beating heart, and, as the result, an accentuation of the sound made by the aortic valves. The murmur indicates a slight mitral insufficiency. If there was greater insufficiency, we would have more marked pulmonary enlargement. We might consider it a hemic murmur owing to changes in the walls of the heart and in the blood. If it is a real mitral insufficiency we ought to hear it behind at the lower angle of the scapula and extending thence to the spine. I can hear a very faint bruit in the back and I think we have here a slight mitral insufficiency and not a hemic murmur.

It was long ago noticed that with Bright's disease there was usually coincident heart trouble, particularly left ventricular hypertrophy, and this was sometimes found to come on with the kidney lesion, sometimes after it. Several theories have been advanced to explain this. The earlier theory was that following the disease of the kidney there was an inability on the part of the kidney to get rid of the fluids of the body, because some of the tubules were plugged up from the parenchymatous changes in the kidney. Therefore, the healthy tubules would have to do more than their share of the work, and, in order to do so, there must be a greater blood-pressure. Because of this long-continued increased blood-pressure, the left ventricle must hypertrophy. The thickening of the arteries has been explained by the chemical theory, an inflammation having been set up by the poisons circulating in the blood. I have no doubt that this theory holds good in a certain proportion of cases.

There were found to be, however, a class of cases characterized by the passage of a very large quantity of urine early in the disease, which continued for a long time, and with this there was increased arterial tension and left ventricular hypertrophy, and Drs. Gull and Sutton, of England, brought out the theory that this was due to a general arterial change throughout the body—an arterio-capillary fibrosis consisting of an increase in the amount of fibrous structure in the heart, the vessels of the body, and of the kidney. Thus, they said, certain areas of the kidney would be robbed of their blood-supply, there would be atrophy of certain cells of the kidney, and a cirrhotic kidney would result. In this condition, there would be not only a cirrhotic kidney but a cirrhotic heart and blood-vessels. Thus they believed that this cirrhotic kidney was quite distinct from other forms of Bright's disease.

DaCosta and Longstreth of Philadelphia have found that there were accompanying disturbances of the sympathetic nerves. The sympathetics involved were those that presided over the blood-supply and nutrition of the kidney. I have no doubt that, as the result of these disturbances, we have the fibroid changes in the vessels.

This is not a typical case of arterio-capillary fibrosis, because it followed exposure, and the amount of urine is variable. In arterio-capillary fibrosis the vascular tension is great, and hence a large amount of urine is evacuated, and with only a little albumin and few casts. In this case we have a considerable quantity of albumin and hyaline casts, and particularly granular casts, which show degeneration of the specific kidney epithelium. We have to do with a mixed

case of Bright's disease which has probably begun in the parenchyma and extended to the stroma. It is a chronic diffuse nephritis. This condition is often the result of the alcohol habit, but not in this case. Sometimes it comes from long-continued exposure to cold, or from blood-dyscrasiæ such as rheumatism, gout and lithemia. It may be due to the extension of pyelitis and other forms of nephritis, such as acute nephritis following scarlatina and other infectious diseases. It may follow a cyanotic kidney, itself the result of a previously existing heart disease. There are also a variety of other causes. He gives the history only of taking cold while sweating. Probably he had the disease before he knew it, and the cold made it worse. One of the most common causes is the uric acid diathesis, especially in those who are gouty or lithemic.

Following his kidney lesion came the change in the heart, and then in the arteries. Then albumin appeared and granular casts. At times you will find blood and epithelial casts earlier in the disease.

The dizziness, headache and disturbance of vision must be considered. Hemorrhages in the retina and changes in the optic disc occur early in fibroid kidney, and hence the use of the ophthalmoscope is important. Since the vessels may become plugged up, or capillary aneurisms form which may rupture, there is danger of apoplexy. The dizziness and headache are due to imperfect blood-supply to the brain. If a capillary aneurism ruptures in the brain, a sudden and short-lived attack of paralysis may result and others may follow.

Naturally when we find very high arterial tension, we feel like reducing it, and I have done so here but without good results. I gave him nitro-glycerin, which reduced the amount of urine, because it lowered the blood-pressure. It has, therefore, been discontinued. Usually, nature will increase the blood-pressure to the proper extent in this form of Bright's disease, though she will not in others, and if you raise the already high tension you will increase the strain upon the heart and vessels which are already weakened, and sometimes your patient may have an attack of apoplexy. Occasionally, however, it is necessary to give digitalis to increase the blood-pressure and consequently the elimination of waste substances by the kidney. In some cases the indication may be to lower the blood-pressure. Keep the bowels and skin active, usually let the blood-pressure alone, observe proper hygienic precautions. This man shall be given Basham's mixture, shall be kept in bed constantly and the greatest attention paid to his digestion. His diet shall be modified according to the amount of albumin lost and the quantity of urea eliminated. He shall have a steam-bath in bed twice a day.

HODGKIN'S DISEASE. — DUODENAL ULCER.[1]

BY WILLIAM PEPPER, M. D.,

PROVOST OF THE UNIVERSITY OF PENNSYLVANIA; PROFESSOR OF THE THEORY AND PRACTICE OF MEDICINE AND OF CLINICAL MEDICINE, UNIVERSITY OF PENNSYLVANIA, ETC.

Hodgkin's Disease.

Gentlemen: This man is 45 years old; his family history is bad. Personally, he has always had good health until two years ago, when he had a sunstroke, from the effects of which he never fully recovered. Over one year ago he noticed that his belly was commencing to swell. This was attended with a loss of flesh and strength, but without any pain. There have been no evidences of fever. He is quite anemic. We have here a very bad history. On making a physical examination I elicit the following facts: In the first place I notice an immense enlargement of the abdomen, which is not entirely symmetrical. It gives no sense of fluctuation on palpation. I find that it is irregular in outline as determined by percussion. Above the growth there is a marked tympany associated with a succussion splash, due to a dilated stomach. To the right is a deep-seated intestinal resonance with something dense between it and my finger. The liver is in its normal position. Although there is dulness from the ribs down to the mass, I do not think that it grows from the liver, for Dr. Stillwell, who has kindly brought in this patient to-day, tells me that the lump was first detected lower down and has grown in an upward direction. On palpating over the abdomen I find an immense hard mass, nodulated, of an irregularly rounded form with nodules sticking out from it in every direction. It is superficial in position, but extends deeply into the ab-

[1] Delivered at the Hospital of the University of Pennsylvania.

dominal cavity. By placing my hands on the sides, I am able to raise it a little. It has, therefore, a slight degree of mobility, and is not painful on ordinary pressure. The spleen I can feel to be enlarged materially. It is three times as large as normal, but is not connected with the mass. The glands of the groin are very decidedly enlarged on both sides. There is a trifling enlargement of the glands at the left angle of the jaw, and in the axillæ a marked enlargement of the glands.

Now, what is this tumor, and to what is it attached? It is a solid mass with no fluctuation at any point. An examination of the blood shows no leukemia. The red blood corpuscles are normal in size, but paler than in health. Their number has not been counted as yet. The two diseases which come to my mind at once are lymphatic or pseudo-leukemia and carcinoma. It is one of these. Now, as against the notion of carcinoma we have found that there is comparatively little pain and that there is a wide-spread affection of the lymphatic glands. This enlargement is too symmetrical and evenly distributed to be like secondary carcinoma, but is very like that occurring in lymphatic leukemia or in pseudo-leukemia. Still, I would not say that it could not be carcinoma, but that it is excessively rare for carcinoma to produce a condition like this. It is not a case of leukemia, but I believe it to be a very marked case of pseudo-leukemia. In both of these conditions the red blood corpuscles are greatly reduced in number, but in pseudo-leukemia the white corpuscles are not considerably increased in number. The evidence, then, is in favor of Hodgkin's disease—lymphatic pseudo-leukemia. This tumor I believe to be an implication of the omentum and superficial mesenteric glands. I do not believe that the deep glands are involved, or there would be pain from pressure upon the deep nerves. Pending the completion of the examination of the blood, I shall diagnose this condition as Hodgkin's disease of an extraordinary variety.

Perhaps the strongest argument in favor of this being a case of carcinoma would be found in the apparent hereditary history which this man presents, both of phthisis and carcinoma. His father died of consumption at the age of 45. One sister died of throat consumption. Another sister has disease of the spine. One brother died of a lump in the left side of his chest, probably carcinomatous. Now Hodgkin's disease has no hereditary character whatever, while carcinoma has a strong hereditary character. Then, again, Hodgkin's disease is very rare, but such a case of primary lymphatic sarcoma is just as rare, if not rarer. Still the argument from rarity is one of the most fallacious to us living in such a community as we do—that is, the American people, for a clinic like this is a sieve through which everything passes, and we do not wish to jump at the conclusion that we have found something rare which could be explained in a more simple manner. The prognosis in either event is most unfavorable, and the disease is one rather of diagnostic interest than of practical value, and it is one of the opprobria of the profession that it should be so. However, as yet everything has been tried to influence the progress of this destructive change in these deep lymphatic tissues without success.

Hodgkin's Disease.

This man was brought here by Dr. Morton, and is 54 years old. He is a farmer resident in Bucks County. His mother died of old age. His father died of an obscure abdominal tumor. The other members of his family are hearty. He was always sallow and a little pale as a young man. Twenty years ago he had an attack of intermittent fever. Six years ago he began to notice that the glands on the left side of his neck had commenced to enlarge, and soon there was a mass of tumor there. The axillary glands of the right side next developed. The front of his chest then became covered with a network of distended veins. His liver and spleen were normal on examination. A dark yellow, nearly brownish pigment appeared in spots over his body. He takes cold easily, and at times suffers from attacks of neuralgia in his head. He becomes short of breath on the slightest exertion. The condition of his blood is as follows: on the ninth of February last the red corpuscles numbered 3,900,000 and the hemoglobin 75 per cent.; the urine was normal. On the nineteenth of October red corpuscles had increased to 4,500,000; the hemoglobin 65 per cent.; the urine was normal.

Let us study this case in the light of the one just before us. The surface of his chest is covered with scars due to an old acne. I find a mass of glands under the left angle of the jaw, hard, movable, painless, with no discoloration of the skin, and

no adhesions to the surrounding parts. On the right side is the duplicate of this. There is symmetrical enlargement of the axillary glands, and to a smaller extent of the inguinal glands, just about as much as in the other case. The spleen is not at all enlarged, and the liver is normal. There is no enlargement of the abdominal glands. The veins at the root of the neck are greatly distended, and this, together with the fact that he complains of shortness of breath, seems to indicate that there is an enlargement of the intra-thoracic glands. The heart is normal, and there is no abnormal substernal dulness. There is an area of dulness at the right side of the sternum extending from the second interspace to the fourth which is very probably due to a cluster of enlarged glands at this point. This man has been treated in the orthodox way with increasing doses of Fowler's solution, beginning with three drops and increasing to fifteen drops three times a day, together with the proto-carbonate of iron three to six grains three times daily. Under this treatment he has decidedly improved. The number of his red corpuscles has increased, and there has been no further enlargement of the glands. Why should this be? The case presents all the appearances of Hodgkin's disease, and yet it is improving. It is a case of the first interest, and should be watched carefully. In both of these patients the use of Fowler's solution and the proto-carbonate of iron will he continued and pushed to tolerance.

The man I now show you is the case of splenic leukemia which you saw last Saturday. He looks bright to-day. We are keeping an exact record of the state of his blood, noting the changes which take place in the leucocytes from day to day. At present the proportion of leucocytes is one to four, and his red corpuscles are down to two million. An important question which now arises in connection with these three cases is, Why, in one case, do we find a diminution in the number of the red corpuscles with a large increase in the number of the leucocytes, while in the other there is the same diminution in the red with no increase of the leucocytes? What is the difference between the two conditions? This we cannot answer. There is a connecting link which we have not yet made out, but it has been noticed that at times a case of Hodgkin's disease will, towards the close, turn into true leukemia. There are then transitional stages of these conditions, and the connecting link must be studied.

Duodenal Ulcer.

This man is 44 years old. Two years ago he was perfectly healthy, although he has served in the army. At that time he commenced losing flesh and strength, and complained of pain in his belly upon the right side with soreness on pressure. This continued until fifteen months ago when he suddenly vomited a large quantity of blood, and also passed a considerable quantity from his bowels. This was repeated several times, and then stopped until a short time ago, when it recurred again. At no time has he had nausea. When he has the hemorrhage it comes up copiously. He has marked dyspepsia, meat and vegetables causing diarrhœa and pain. His bowels are irregular; the stools often green and slimy. He often has night-sweats, and frequently becomes bilious. He has been accustomed to the free use of undiluted whiskey. Now, what are these symptoms due to? You notice he has an attack of hematemesis associated with melæna following the free use of alcohol. He has had severe gastro-intestinal catarrh for two years or more. To explain this condition two diseases occur to me, and the diagnosis rests between them. One is cirrhosis of the liver, and the other is an ulcer. He has used liquor all his life pretty freely. Cirrhosis of the liver has, for its most common cause, the excessive use of undiluted spirits. This will also inflame the glandular apparatus of the stomach, lead to degeneration of the coats of the stomach with the production of gastric catarrh. This change extends to the liver and produces a chronic inflammation there. The history of cirrhosis is that the liver first enlarges, and then as the disease progresses it becomes hard and shrinks to smaller than normal. In examining here in the axillary line as well as the nipple line I find that the liver is not changed. This fact, as well as the absence of enlargement of the abdominal veins leads me to think the man has not cirrhosis of the liver. He has had, however, a long continuance of pain. This is not a symptom of cirrhosis, but is of ulcer of the stomach. On the whole I think this man has had an ulcer, whether of the stomach or duodenum I cannot say, since both will produce vomiting and purging of blood. Gastric ulcer is so much more common than duodenal ulcer that we give the preference

to that, but vomiting is a prominent symptom of that condition. There has been none in this case, so I will prefer to regard this as a case of duodenal ulcer.

As regards treatment, the man must be kept in bed, counter-irritants used, a restricted milk-diet given, and nitrate of silver administered in the form of a pill. His only chance for recovery is the absolute stoppage of the use of all alcohol, otherwise he will be very apt to die during another hemorrhage.

COMMUNICATIONS.

TRACHOMA AND THE TIN WASH-BASIN.[1]

BY A. E. PRINCE, M. D.,
JACKSONVILLE, ILL.

In choosing the relation existing between trachoma and the tin wash-basin, as the title of this brief paper, it is with an earnest appreciation of the importance of the subject it embraces. The communicability and prevention of this disease is a sufficiently serious question to command the attention of the thoughtful sanitary student. There are diseases of the eye which are more fatal, and there are others which are more painful, but in the number of individuals affected, and the serious and lasting consequences of its course and complications trachoma outstrips them all, if not the sum of all, in the misery and discomfort it entails. One has but to spend a few weeks in any one of the large dispensaries for the treatment of the diseases of the eye, and see the ratio that these multitudes bear to all others, the distressing complications of corneal ulcers, pannus, prolapse of the iris and opacities; the indelible effects on the conjunctiva; atresia, symblepharon, lachrymal stenosis, erosis, and the deformities of the lid; plepharophimosis, entropion, trichiasis—and he must be convinced that the prevention of these calamities is worthy of serious attention.

We are taught that Salter isolated and cultivated the diplococcus of trachoma, but heretofore insufficient attention has been devoted to the elucidation of the media and avenues by which these micro-organisms are conveyed from one eye to another. In Egypt the same disease, known as Egyptian ophthalmia, is regarded as the pest of the country and the calamity of the race. Both there and in Syria it is the exception to the rule if one escapes the disease. The most plausible explanation of the degree of communicability in these dry and sandy countries is found in the absence of surface water, in consequence of which the flies quench their thirst by lighting on the face and drinking the moisture from the margins of the lids. In this way from one individual to another the germs of trachoma are conveyed. Sometimes it is said, by those who have investigated the subject, that a bleareyed beggar may often be seen with a ring of flies perched about either eye waiting to carry a load of infection to more healthy sources of moisture.

With such causes as these added to those arising from the prevailing habits of filth and negligence, it is not strange that trachoma should be regarded among the inevitables and little effort be made to arrest or quarantine it. But in Northern countries the case is different. General moisture prevails and the medium of flies falls out of the account. Here the disease is found almost limited to one class, viz., the indiscriminate washing class.

For the past ten years I have been compiling statistics, and was not a little surprised two years ago to find that 80 per cent. of all my trachoma cases are furnished by the male portion of the farming population. This surprising fact led me to institute an investigation to ascertain the assignable, and ultimately the true source of contagion. In every case I have attempted to trace the disease to the pre-existing disease in another individual. Frequently I have been unable to do so, but usually if the disease has been of recent origin the patient has been able to recall the knowledge of some one who had sore eyes and used the family wash-basin, an accompaniment of almost every farm-house. So intimate was found the connection between the disease in question and this omnipresent basin that I began (at first in jest, but, with experience, more seriously) to assign as the cause of every new case which appeared, the "back-door tin wash-basin." Sometimes it would appear on investigation that the assumption was partly wrong. It

[1] Read at the Fourteenth Semi-Annual Meeting of the District Medical Society of Central Illinois, Nov. 12, 1889.

might have been the side-door, it may not have been tin, but it was the invariable family basin which served alike for friend and stranger. In one case it was strongly held for several weeks that the disease originated from a beard of wheat, which entered the eye while threshing. The patient was requested to make particular inquiry at the different places at which he had recently been, previous to the outbreak of the attack, and upon his next visit he confessed to have found the source at the last place at which he had been engaged, in the person of the owner of the farm, who had had sore eyes for many years.

There is probably no one here who has not had abundant experience to enable him to testify as to the universality of this condemnable practice of the farmer, which is followed entirely through ignorance of the risk it entails. In one case it has been possible to trace the course of a harvest hand about the country by means of the number of those who sought treatment for trachoma, and whose infection could be traced to this one origin.

In passing, I should not wish to be accused of injustice by omitting mention of the claims which may rightfully be urged in favor of the accompanying roller-towel. The partnership is a strong one and is doubtless often a boon to the unfortunate microbe. Burdened by the inhospitality of cicatrization and medication, he severs his ancestral ties, embarks with his family in the drop of muco-pus, survives the maelstrom of the wash-basin, and finds shelter and protection in the friendly meshes of the towel, from which his family are safely landed in an Eden of fertility, where, freed from persecution, he commences with renewed vigor to sow the seed of future generations. The intimate association between the towel and basin render it impossible to decide in any individual case to which to attach the blame, hence we cannot do otherwise than indict them both. The sticky smear of soap and dirt which adheres to these basins for days, and eludes ordinary efforts of cleansing, forms a surface well calculated to become the source of infection; while the dangers of the towel are more apparent to the average individual. If the latter is more dangerous, the former is at least more treacherous.

That the same habits of indiscriminate washing prevail in the towns, and especially among the poorer classes who live in small quarters, there can be no doubt. The habits of the country enable us with less uncertainty to trace the thread of evidence; but wherever the disease exists, it may usually be traced to some one individual.

But this is not the age of communism, and until that era arrives it becomes our duty to inculcate ideas of cleanliness, the ameliorating influence of which will be proportionate to the extent of their dissemination.

Some years ago the Institution for the Education of the Deaf and Dumb in Jacksonville was much tormented by the annual development of trachoma. It was found that the male and female pupils had each a place where water and towels were common property. Attempts to quarantine had been a failure, because often the healthiest outside appearance conceals the latent trachoma follicles, which, in a new soil, may manifest its most angry forms. The basin gave place to streams of running water, individualism in the possession of towels was established, and the few cases which gained entrance into the school of five hundred pupils, drawn from every sphere of life, found scant media for communication, and trouble in this direction ceased.

We may find a seeming parallel in the comparison of notions with regard to the matter of cleanliness and the presence of trachoma. It is a singular fact that Switzerland is almost devoid of trachoma. In Berne, Professor Pflüger, who has charge of an extensive eye clinic, told me that he had had but two trachoma cases in the hospital during his experience, and they were imported. Professor Haab, of Zurich, complained to me that they did not have enough trachoma to familiarize the student with its natural history. Neither of these professors was able to assign any reason for this immunity; and in the absence of a better explanation, it may be regarded as a result of the universal cleanliness which seems to pervade the life of this little republic. The large and small towns, side streets and back-doors all give evidence of the military discipline which during the centuries has implanted sanitary precautions and personal cleanliness in the life and habits of the people. At the other extreme stands Ireland, with a maximum of trachoma, and a population devoid of the instincts of cleanliness. The conclusion is difficult to escape, that the relation is intimate and that Utopian discrimination in washing would lead to the extermination of the disease.

DIPHTHERIA OF THE GENITALIA.

BY DAN MILLIKIN, M. D.,

PROFESSOR OF MATERIA MEDICA AND THERAPEUTICS, MIAMI MEDICAL COLLEGE, CINCINNATI, O.

It needs not many words to tell all that is known of diphtheria of the genitals. Few of the large systematic treatises on the practice of medicine make any reference to the disease seated in the genitalia. It is not pretended by any author that the disease as exhibited in or on the penis or vulva or vagina has anything distinctive about it. The membrane has the ordinary composition of fibrinous matter derived from the patient, and the bacteria is more or less essential for the disease.

Diphtheria can develop itself on any mucous membrane that is not too remote from the air. It is not a month since I saw a case of pharyngeal diphtheria wherein the little patient announced the arrival of the disease by a convulsion, and in this convulsion he bit his tongue. The little wound of the tongue developed a membrane before it could be perceived in the pharynx, and it remained there until the death of the child from toxemia, although the pharynx became clean as the child sank lower and lower.

Many observers have noted the development of the disease on the common integument where it has been denuded of its external layer by vesication or by mechanical means.

It is not uncommon behind the ears of children, and it takes root freely at the angles of the mouth and at the palpebral angles where the skin, merging into mucous membrane, is poorly nourished and is liable to ulceration and abrasion. So that in the nature of things it is not to be wondered at that the genitals are often the seat of diphtheria. There, upon the penis and vulva, as at the angles of the mouth and eyelids, the skin and mucous membrane merging into each other and the hands of the patient are instinctively busy carrying the poison from the mouth, perhaps, to these parts.

Diphtheria affects the penis most frequently at the base of the corona, and there is no doubt that when this region is kept moist and tender by a neat-fitting prepuce its vulnerability is greater. Repeatedly circumcision wounds have been the seat of diphtheria, and in some cases there has been reason to suspect that the child has been inoculated from the mouth of the operator.

Vaginal diphtheria has been observed not in little girls alone but in puerperal women. In child-bed it is especially liable to terminate in general sepsis. In such cases the uterus and appendages are highly inflamed, but it has not yet been made out with certainty that the disease travels so far: in other words, the inflammation of the deeper organs may bring on the inflammation of general puerperal sepsis—not of diphtheria.

It is doubtful whether diphtheria ever passes beyond the male urethra into the bladder. Jacobi gives account of a case in which the bladder was completely lined with a membrane which passed for a diphtheritic membrane. The catheter would not penetrate it, and at the autopsy it was found to be a complete sack full of urine. But the suspicion arises that this was not a specific product of diphtheria, but a simple inflammation of the interior of the bladder with abundant fibrinous exudation.

There is simply nothing to be said of the treatment of such diseases. Whatever general or local treatment may be indicated for diphtheria of the pharynx is indicated here. We are not to suppose that the fact that the disease has developed of the genitalia is a fact of any great significance unless, possibly, it indicates that the patient furnishes an unusually congenital soil for the development of the disease.

PELVIC PERITONITIS RESULTING IN CYSTIC DEGENERATION OF THE OVARIES AND TUBES; REMOVAL; DEATH FROM GENERAL PERITONITIS ON THE FOURTH DAY.

BY JOHN C. COTTON, M. D.,

MEADVILLE, PA.

Believing that good may be accomplished by a report of failures as well as successes, a history of the following case is submitted.

The patient, Mrs. L., 29 years old, married, and the mother of three living children, inherited a scorbutic diathesis, her mother having died with consumption, also one sister. Her personal history being in some respects unique, merits brief mention. Married at the age of 16, she bore three children in rapid succession. In the fourth pregnancy, in 1883, she aborted at two

months, after which she was attacked with acute general endometritis, which gradually subsided but later was followed by chronic inflammation of the uterus and its appendages. After protracted rest in the recumbent position and energetic treatment she slowly recovered, a slight tenderness in pelvic region and uneasiness in left iliac being the only symptoms not entirely relieved.

In the spring of 1885 a typhoid pneumonia confined her to her bed for quite three months, from which she finally recovered with almost a complete loss of resonance in apex of the right lung, which remained in that condition ever afterward. In the following spring she fell from a step-ladder and dislocated the coccyx from the sacrum. She was then confined to the recumbent position for five or six weeks in the hope that union would take place, but was finally compelled to submit to the operation for removal of the coccyx.

In the fall of the same year she was subjected to a tedious confinement in bed from a second attack of endometritis which extended and involved the pelvic peritoneum. This attack was quite severe, but after about the same course of treatment as had been previously adopted she partially recovered, but the distress in the pelvis which had continued since the former attack was more decided, especially in the left ovarian region.

Pregnancy once more occurred early in 1887, during which there was some amelioration of the painful pelvic symptoms. After the birth of a delicate child that only survived a few months, the pelvic pains were aggravated and extended to the right side. In Jan., 1888, pregnancy again took place, and she once more aborted at two months, after which she became a confirmed invalid, being confined to her home almost all of the time and much of it to her bed ever afterward. The prominent symptoms were extreme pain in the region of the ovaries and tenderness throughout the pelvis.

Every known line of treatment was honestly tried, including electricity, protracted rest, hot vaginal douches, persistently used, for months, the patient recumbent, a succession of blisters, large and small, but without permanent relief. Dr. W. D. Hamaker, of Meadville, and Dr. Geo. E. Benninghoff, of Bradford, were at different times called in consultation and an operation for a laceration of the cervix was at one time decided upon and performed with the expectation that it would have a beneficial effect on the sub-involution of the uterus, which still persisted, and the pelvic distress. The relief, however, was confined to the former, no appreciable benefit resulted in the latter.

As a last resort and at the patient's request, who declared that she preferred death itself to such continual sufferings, an operation was decided upon, with the hope of giving relief, as well as to determine the real pathological condition of the uterine appendages. In the forcible language of Tait, "absolute accuracy of diagnosis within the pelvis is very far from being possible; only the ignorant assert that it is and only fools wait for it."

At the City Hospital of Meadville, Oct. 4, in the presence of Drs. Hamaker, Hassler, Calvin and Carmichael, all of Meadville, under rigid aseptic precautions, the operating room having been thoroughly fumigated, an exploratory incision two inches in length was made. The left ovary and tube were readily hooked up by the index and brought into view as there were only slight adhesions. Many transparent cysts larger than peas were discovered imbedded in the surface of the ovary and several were found in the whole length of the tube. The ovary itself fluctuated. Under such circumstances and taking account of the previous suffering and the evident present hyperesthesia in that locality the indication seemed plain for their removal. For this purpose the incision was extended to three inches, and the parts being well exposed a strong double silk ligature was applied to the pedicle as near the uterus as possible. A pressure forceps was applied to the included structures close to the ligature and the appendages shaved off along the blade of the forceps.

The right ovary and tube were found to contain cysts also of a similar character, although not so numerous as those on the left side. This ovary fluctuated also. These were removed in the same manner as the left had been.

There was not more than an ounce of blood lost and no untoward circumstance occurred during the operation. The cavity of the abdomen being dry before it was closed a drainage-tube was not deemed necessary. The incision was closed in the usual manner by four silk sutures to the inch, entering the peritoneal surface fully one-third of an inch from the line of incision and emerging on the cutaneous surface near the edge, to prevent puckering.

Idoform was dusted on the wound and idoform lint applied. Large rolls of sterilized absorbent cotton then followed, held in position by adhesive plaster, the whole enveloped by a binder. The patient was then placed in bed with strong confidence in her recovery, especially when compared with other more difficult and apparently less promising cases successfully operated on in this hospital within the last few years. She was not excessively emaciated and her strength was fair notwithstanding her long confinement.

The patient rallied well from the shock and the temperature was but slightly above normal during the first day but on the morning of the second day severe pain was experienced in the abdomen and the temperature rose to 102⅖°. On the third day all the symptoms were aggravated, the bowels became decidedly tympanitic and ⅜ gr. morphia hypodermically were required every fourth hour to allay the suffering. The temperature was now 105⅗°. Death ensued on the morning of the fourth day or seventy hours after the operation.

The ovaries at a subsequent examination were found to be not much enlarged but were true cysts and each was filled with about a drachm of fluid of the same character as that contained in the small cysts heretofore described.

The appearance of the cysts and the ovaries in this cases is well illustrated in vol. II, *American System of Gynecology* by engraving fig. 299 in Coe's article, "Diseases of the Ovaries."

VAGINAL CYSTS.

BY DR. J. M. BALDY,
PHILADELPHIA, PA.

On July 18, 1889, Kate D. consulted me for what she considered "falling of the womb." She was 35 years old, married, and had had one child seven years before. Immediately after her labor the "lump" had appeared, but her doctor told her it would soon go back. In spite of this assurance, however, the condition had remained the same, causing her great discomfort and at times incapacitating her for her work. She had always been forced to push it back before micturition. During the past seven years she has been under constant treatment by different physicians for rectocele and cystocele, tampons and pessaries being the favorite treatment.

On examination, the parts showed what at first sight appeared to be a simple prolapse of the bladder and uterus. On attempting to push this back into the vagina a sensation of too great thickness of the anterior vaginal wall was conveyed to the finger and a slight further investigation disclosed the fact that there was probably a cyst present. A sound in the bladder together with the finger in the vagina, demonstrated a soft fluctuating tumor and easily settled the diagnosis. The cyst occupied the anterior part of the vaginal vault, extending antero-posteriorly from about the neck of the bladder to within an inch of the cervix uteri; it was almost exactly in the median line and did not reach the lateral sulci on either side. The cyst was a single one about the size of a small hen's egg and was sessile. The mucous membrane covering it was in all respects like that of the surrounding parts, being of the character so commonly seen in these old cases of prolapse, where the parts have been exposed for years: it slid back and forth over the cyst with great readiness. The cyst did not seem to have grown any for the seven years of its probable existence, or, rather after it was discovered as a supposed cystocele, nor did it interfere (further than a partial prolapse would) with coition. The tumor was removed by enucleation on the following day. The edges of the mucous membrane were trimmed away and brought together by a row of interrupted sutures. Several strands of catgut were placed at the bottom of the wound, lying its whole length and protruding at each end as a drain. The wound healed well, excepting the first two stitches, which were torn out by the nurse while using the syringe. This point healed by granulation. The perineum and cervix need repairing, but the woman has not yet returned for the second operation. These cysts are very curious and many theories have been propounded to explain their origin.

1. That they are simply the result of an accumulation of the secreted fluid in a depression formed by the union of the crests of two contiguous folds of mucous membrane.

2. That they are the result of simple dilatation of the lymph channels which

traverse the connective tissue of the vaginal wall.

3. That they owe their origin to the ducts of Gärtner.

4. That they owe their origin to the glands in the vaginal mucous membrane.

It hardly seems worth while to look for such unlikely sources as the first two. We have mucous membrane and lymph channels in other parts of the body, where we do not have cysts forming to the same extent as here. This reasoning will hold especially good, as both the last two sources seem so probable and so analogous to what happens in other parts of the body; and until some more definite proof, that even a single case has so arisen is produced, I shall have to look for simpler means of explanation. From the fact that the ducts of Gärtner are situated in this part of the body, it becomes a great temptation to put these down as the source of origin. This is, in fact, done by many authorities, but I think without sufficient cause. In the first place, there has been no real anatomical evidence offered that such is a fact. In the *American Journal of Obstetrics*, for Nov., 1887, Johnston argued for this point, and reported a case of which he said, "we believe that the cysts in this, our own case, originated in a dilatation of the vaginal portion of the right Gärtner's canal." He fails, however, to produce the slightest corroborative evidence. In his case there were three or four cysts, each one containing a different kind of fluid, which would hardly have occurred had they all originated from the same duct.

These ducts of Gärtner lie towards the sides of the vagina and if the cysts were formed from them, they would all be attached, more or less, to the lateral walls. This, however, is not true, as they occur most frequently on the anterior and posterior walls of the vagina, and about equally so on each. Therefore, I think we must look for some other source; this would seem to be the vaginal glands. "The mechanism of cyst-formation in these glands is like that of retention cysts in secreting cavities elsewhere," and with this simple explanation of their existence I can see no reason for trying to find some more complex source. The one difficulty with this explanation is the fact the very existence of vaginal glands has been denied; but with the positive evidence in favor of their presence by such men as Dubois, Klek, Veit, Löwenstein, Von Preuschen, and others, negative evidence goes but a little way. Unfortunately the microscope and chemistry has helped us but little in deciding the origin of these cysts, and so we are forced to decide as best we may from our anatomical knowledge and from reasoning by analogy.

The treatment of these cysts has been as varied and anomalous as the theories as to their origin. Some of the different methods which have been adopted are:

1. Simple puncture or simple incision.

2. Puncture or incision followed by the injection of irritants.

3. Excision of a part or whole of the cyst wall and application of irritants.

4. Removal of all that part of the cyst that projects above the vaginal surface, and suturing the mucous membrane of the vaginal to the membranous lining of the cyst.

5. Complete enucleation.

If the cyst be of any size, the first three methods are uncertain and unsurgical. Johnston, in his paper already alluded to, pronounces enucleation difficult and sometimes dangerous, and, together with Duncan, thinks it an example of surgical greed. He decides for the fourth method, as by all odds the best. In this I cannot agree with him. If the cyst be of moderate size, as in the case I have reported, and as most of them are, enucleation is the most surgical procedure and by no means presents the difficulties he would have us believe. A surgeon need not fear the little blood lost, and unless he be unskillful or clumsy, need not open the cyst. To have caused a fatal peritonitis, as happened in one of the cases reported by Johnston, some very primitive work must have been done. The cutting away of the cyst wall and stitching the mucous membranes together may probably be the operation of choice in some few cases, but a clean enucleation is the operation *par excellence* for most of them.

Eye-Wash.—A safe, cheap and good eye-wash can be made by putting one drachm of the crystals of boracic acid into one pint of soft boiled water; keep in a cool place, and bathe the eyes with three or four tablespoonfuls of the medicated water, as hot as can be endured, three or four times a day, letting some of the fluid get into the affected eye each time. The above is applicable in almost every case of inflammation of the conjunctiva, acute, subacute or chronic.

CREMATION.

WHAT IS THOUGHT OF IT BY PHYSICIANS.

Interviews with Physicians by a Representative of the Medical and Surgical Reporter.

Ninth Series.—Washington.

Dr. I. W. Blackburn is in favor of cremation as a general method of disposing of the dead, from any point of view. Anything he might say in its favor could add nothing to its well-recognized desirability among members of the medical profession; though with his acquaintance with the horrors of decomposition, he might give some points to the laity.

Dr. J. Wesley Bovee is very much in favor of cremation and particularly as a hygienic measure. It will tend to prevent the spread of diseases and save much land near large cities that would be used for cemeteries under the existing method of burial, and that will be needed for extension of the rapidly growing cities. It will also tend to lessen the fear of violation of bodies after burial.

Dr. Robert T. Edes is of the opinion that in the present dearth of anatomical material in the District of Columbia, cremation would be a shocking waste.

Dr. C. W. Franzoni states that his personal prejudice is fast yielding to the necessities which are so rapidly forcing themselves upon us, and thinks that before another decade cremation will be an accomplished fact.

Dr. W. W. Godding expressed his views briefly in the following terms: Our quickest way back to the original elements, as well as the safest from a sanitary standpoint, is by fire. Interments in cities should be forbidden by law as dangerous to health. Rural cemeteries in suitable soils, with proper regulations, are safe enough, and sentiment is decidedly in their favor. Personally I had as lief be cremated as humated, but if my friends have any feeling about it I hope science will not forbid me the disinfecting by dry earth and the alchemy of the daisies.

Dr. D. R. Hagner had not thought sufficiently on the subject of cremation to come to any decided expression of opinion as to its propriety, but as far as hygienic considerations are concerned there is no doubt in his mind as to its desirability.

Dr. W. A. Hammond is entirely in favor of the cremation of the bodies of the dead, and has been for many years, but has no time to give his views in detail on the subject.

Dr. W. H. Hawkes thinks that a reform in the present very unsanitary method of disposing of the dead, especially in large cities, is imperatively demanded, but confesses, however, to a prejudice against cremation. He favors the "New Mausoleum" plan, invented and perfected by a resident of Washington. Proposing, as it does, a gradual desiccation of human bodies with a destruction of the resulting gases and fluids, it seems to him thoroughly scientific in its details, sanitary in its results, and free from the objections, medico-legal and sentimental, which have been urged against cremation.

Dr. A. A. Hoehling writes: I am thoroughly in accord with those who favor cremation as the only proper method of disposing of the dead.

Dr. James Kerr thinks that the sanitary objections against burial have been much exaggerated, and the traditions and sentiment of the human race is so much opposed to any other method for disposal of the dead that he is of the opinion that cremation, at present, is not within the possibilities of practical reform.

Dr. A. F. A. King thinks there is so much to be said on the side of cremation as compared with our present system of burials, that it is impossible to condense it into any brief expression, such as is here requested. The only objection he can see to cremation is the waste of "anatomical material," but if buried, it is generally wasted anyhow.

Dr. W. Lee, Professor of Physiology in Columbia University, expressed his views as follows, when asked his opinion in brief on the propriety and desirability of cremation: Most unquestionably I favor it from both standpoints, as the result of my physiological training and experience as a medical practitioner, which both confirm prejudices in its favor from early life. I take it that you do not desire me to argue the question after it has been so ably dealt with by others. I can see but one valid objection, that of the jurist, regarding identification and the detection of crime; these I believe can, by

proper precautions, be reduced to a minimum which would be far overruled by the great sanitary benefit of cremation itself. We have every reason to hope that enlightenment and time will overcome that blind faith in ancient church rites which still obstructs the advance of this mode of the disposal of the dead; so that we can leave to the mussulman his grave made so hollow that he can rise upon his knees, with the same smile that we give to the account of Periander's wife who was so cold in hell for the want of the warmth of a funeral pyre. I know from personal inspection that the rites of cremation can be made as æsthetic and soothing to the mourner as the rites of burial in the church of to-day.

Dr. Louis Mackall, of Georgetown, regrets his inability to comply with the request to furnish his opinion as to the propriety and desirability of cremation, simply because he does not feel qualified to do so, not having given the subject the examination and due consideration that its importance demands.

Dr. Wm. May had no hesitation in saying that he considers cremation in every way the most desirable method of disposing of the dead.

According to Dr. S. O. Richey, the burial of a dead body is tolerable only because it is a custom. It may not be a final disposition of the body, which may be stolen; or, in the march of improvements it may be disinterred, affecting the health of the community and violating the feelings of surviving friends. Besides, the sight of cemeteries is not cheering. Its only advantage is that it furnishes anatomical material not allowed by law. Cremation is desirable from a practical and hygienic standpoint. It is final. Opposition to it is a sentimentality, and will grow less as the thought and frequency of it become habitual.

Dr. Irving C. Rosse, speaking at random and aside from traditional or sentimental considerations, can see no good reason, either from an economic or a scientific point of view, why this method of disposal of the dead should have preference over that usually employed by civilized people. To his mind, the subject is a concept that smacks of fetichism and other pre-historic usages that have disappeared since the advent of Christianity. He is aware that cremation has been defended with conviction by its priests and apostles, and he may even say it has had its martyrs; but there seems to be little foundation for the arguments advanced by the partisans, and the only special cases in which it would seem obligatory are the circumstances of war and pestilence. However useful and desirable it may seem on the battlefield or in time of a grave epidemic, it is doubtful whether cremation can be encouraged as a question of social hygiene without interfering with certain religious opinions respecting the repose of the dead, and any effort on the part of the public power to prescribe the last duties to the dead would be a violation of the principle of liberty of opinion. He therefore questions the propriety and desirability of cremation as a general method of disposing of the dead, and it seems to him that in the present state of our social development the adoption of a habit so at variance with general custom will be sanctioned by only a feeble majority.

Dr. Chas. H. Stowell, late of Ann Arbor University, is in favor of cremation for the following reasons:

First. The observations of Darwin, made fifty years ago, on the formation of molds, showed how the deeper soil could be brought to the surface, taking with it any specific germs it might contain.

Second. Pasteur showed that the germs buried for years at a depth of seven feet, with no disturbance of the surface earth during that time, may appear on the surface, and may even be blown over the surrounding grasses.

Third. It can pollute neither the earth, nor the air, nor the water.

Fourth. The exposure of friends at the grave, during the burial services, would be prevented.

He is opposed to it for the following reasons:

First. The amount of sickness caused by cemeteries is very slight.

Second. The exposure of friends at the grave is easily prevented.

Third. It lessens the chances of detecting murders.

Fourth. There is neither demand nor necessity for such a change from long established customs.

Fifth. The sentimental reason that cremation appears to do violence to the remains of the dead.

Dr. J. Ford Thompson, when asked to give his opinions upon the subject, said that since cremation was brought forward as a method of disposing of the dead, he had

been firmly convinced that it possesses, in several respects, advantages over burial; and he believes it will, in time, be very generally adopted by civilized communities.

Dr. J. L. Wortman, writes: It appears to be a well-recognized fact among medical men that decaying organic materials are conducive to the production of disease through the influence of micro-organisms. By our present system of disposing of the dead these microscopic organisms not infrequently contaminate not only the air we breathe, but the water we drink, and are doubtless often responsible for the outbreak of disease. It seems to me that in cremation we have the quickest, cheapest and most effective method of disposing of such offensive and dangerous materials. No sentiment for the dead should, in my opinion, interfere with our duty to the living.

Dr. H. C. Yarrow is strongly in favor of cremation not only from sanitary reasons, but because of sentimental ones as well. It seems to him inconceivable that loved ones, cherished with tenderest care during life, should be carried off and deposited in the ground, there to become objects so hideous that the mere thought is terrible; not only this, but to serve as a source of pollution to water and a constant menace to the living. He does not like, for instance, the percolated water which flows possibly over the bones of his ancestors in Laurel Hill, Philadelphia.

Foreign Correspondence.

LETTER FROM PARIS.

Prophylactic Measures against Tuberculosis. — Tracheal Injection of Naphthol in Pneumonia. — Ocular Complications of Influenza. — Removal of all the Bones of the Face for Osteo-fibroma due to Misplaced Teeth. — Treatment of Urinary Fistulæ Consecutive to Nephrotomy.

Paris, Jan. 24, 1890.

At the meeting of the Academy of Medicine, Jan. 7, Professor Germain Sée produced a very interesting document. It was a police order about a hundred years old; which was promulgated at that time by the King of Naples. It read as follows:

"Any practicing medical man is compelled to communicate to the authorities of the country, any case of phthisis that may be observed by him in his practice. Should he neglect to fulfill this duty, he is liable to a fine of one hundred ducats, and in case that he should be punished again, he would be condemned, without appeal, to banishment for a period of ten years.

"Poor patients, after the diagnosis of the pulmonary disease has been made, are brought immediately to the hospital.

"The manager of the hospital must give orders that all the patients' linen and clothes are to be kept separate from others.

"The police authorities must renew or clean the room which was occupied by the patient; the floor, bed-clothes and curtains as well as the windows and doors are to be destroyed by fire and replaced by others.

"Severe punishment will be inflicted upon those who will buy or sell clothes having belonged to phthisical patients."

Any house in which a patient died from phthisis was quarantined, and the proprietor lost all chance of letting his dwelling.

This law was also applied in Portugal. In Naples it was observed until the year 1848, but no decrease in the number of cases of phthisis was observed.

Professor Sée also presented another document, a letter written to him by Dr. Cornet, from Rouen, on the subject of the transmission of tuberculosis. The author of the letter thinks that the phthisical patient, personally, is not a dangerous medium, but that he creates danger by not spitting in the spittoon reserved for him. He thinks that the population of a place ought to be taught "never to spit in a handkerchief or on the ground, but always and only in a spittoon which must continuously be kept in a moist condition and never allowed to dry up."

In a practical point of view, the question of heredity need not be taken into consideration, as the nature of this predisposition is a very questionable point.

Professor Sée then continued that the real source of infection was the sputum and not the air, as is proven by many observations. For instance, it would be a difficult matter to find out one single case of tuberculosis which had occurred in a children's hospital, and this for one capital reason. The children do not spit, hence no sputum dust can be found in the air; except, of course, in surgical wards, where the pus from external tubercular lesions might become dry, and then be disseminated in the form of minute particles throughout the room or ward.

Dr. Sée finally remarked that when a physician is brought before a man, a patient, suffering from tuberculosis, he had better not say that he has found any tubercular lesions in the patient, but recommend to him to be excessively clean, and to eat as much fatty food as possible, cod-liver oil, etc., for if a tubercular patient increases in weight his chances of being cured are very much increased.

Dr. Pignol has treated, in his medical dispensary of the Hôtel Dieu, three cases of pneumonia by tracheal injections of naphthol. The cases included one of double pneumonia, one of total right pneumonia in a tuberculous patient, and one total pneumonia in a non-tuberculous patient. The solution used was one of 20 centigrammes of naphthol for a 1000 cub. centim. In one from 200 to 350 cub. centim. of the solution are injected. A tuberculous patient suffering from a double pneumonia, received four injections, while the others only received one. These injections seem to be very well tolerated by the patient and produce no functional disturbance; on the contrary, the patient immediately feels a relief from his dyspnœa, and gradually one is able to find râles where only the bronchial noise had been perceptible.

In one case, the fever immediately came down after the injection—it was the beginning of the disease; in the others, there was an unmistakably favorable change.

Professor Duval remarked that the absorption by the bronchial mucous membrane has been used previously by Dr. Jousset de Bellesne, who, in cases of intermittent fever and malaria, where active measures were demanded, injected a solution of sulphate of quinine into the trachea, while he, Dr. Duval, has also demonstrated that water is so rapidly absorbed on the surface of the bronchial mucous membrane that in rabbits which have been asphyxiated by dipping the ends of their noses into water, all the blood corpuscles are immediately dissolved.

Professor Landolt, of the Paris Faculty of Medicine, has observed, during the present epidemic of influenza, several complications affecting the eyes. The most frequent complication observed was conjunctivitis, which is easily accounted for by the continuation of the nasal with the ocular mucous membrane and the easy way of the propagation of the inflammation of one of these surfaces to the other. The conjunctivitis which is most frequently observed is a special one, and affects the palpetral mucous membrane as well as that of the eyeball. The eyeball is more injected than in simple catarrhal conjunctivitis, especially more violet in hue, darker, which indicates an extension of the disease in a deeper direction, involving the superficial layers of the sclerotic. The functional symptoms observed have been a severe photophobia, watering of the eyes, an increase of the lachrymal secretion and sometimes a muco-purulent discharge.

In certain cases, however, this conjunctivitis takes the form of a true episclerotis with localized deep injection of the sclerotic, presenting very painful symptoms, with an extension of the neuralgia to the eyebrows, forehead and temples. If the affection is only a conjunctivitis, in fifteen days the trouble will be over; if, however, it has extended to the sclerotic coat, a much longer treatment becomes necessary.

Another interesting ocular manifestation of this epidemic is the œdema of the eyelids, the latter being more or less swollen. When moderately developed it coincides with conjunctivitis, and gives to that form a special character. Still, one can observe it absolutely alone and strictly localized to the eyelids. This œdema usually occurs during convalesence. The eyelids very suddenly, during the night, become swollen, and when the patient awakes he finds that his eye is completely closed; at the level of this œdema a rosy-white coloration can be observed, but never redness. This œdema is very different from the erysipelatous kind, and with the finger one is enabled to produce a depression, which shows that the pathological process does not involve the derma. This œdema is painless, and disappears in about fifteen days.

Abscess of the upper eyelid is another accident observed; the abscess appears when the symptoms of the disease have vanished, several weeks even after the cure. The fever begins over again, painful pulsations occur on a level with the affected lid, accompanied by a very intense headache and sleeplessness. Soon the whole upper eyelid becomes tumified, and to such an extent that the region of the temple and cilia are involved; the skin presents a deep red discoloration, which might be mistaken for erysipelas, if fluctuation was not present to indicate the presence of a purulent accumulation. The incision must be made very deeply and the pus is found to have a remarkably bad odor. All these complications are benign in

character and easily treated—for conjunctivitis, a warm boric acid solution, cold compresses for simple œdema; as to the abscess an early opening, followed by drainage, is indicated.

Dr. Péan presented before the Academie de Médecine a case of total excision of the facial bones for multiple osseous tumors of the bones of the face. The patient was a woman 32 years of age, in whom the sphenoid, the two maxillary and the malar bones were invaded by an osteo-fibroma, due to odontomia. The affection dated nine years. In 1884, a surgeon resected the right superior maxillary, but the disease soon recurred in the corresponding bone on the left side. Dr. Péan saw this patient for the first time in November, 1888; at that time the face was hideous to look upon: the left superior maxillary had the size of a new-born child, the inferior maxillary was tumefied; the cheeks, eyelids and nose were pushed out; the buccal, orbital, nasal and pharyngo-nasal cavities were obstructed, the alveolar borders were thickened and the teeth were movable and displaced without allowing one to suppose that two of the teeth were missing by ectopia.

On Dec. 14, 1888, he performed the first operation: the anterior surface of the maxillary bone was exposed by Dr. Péan's method; the patient was placed in the dorsal position, with her body and neck elevated; sponges were kept in the back part of the mouth; the cheeks, nose and septum were pinched previous to operating; then a median section of the upper lip is made, as well as of the dorsum and root of the nose. The cheeks were then detached from their mouth attachment with the knife and scissors. As soon as the tumors were exposed their prominent surfaces were excised with a knife having a concave blade. The other portions of the tumor were removed with cutting forceps. During this part of the operation the superior maxillaries, the malar bones, the pterygoid processes, the naso-orbital septum and the floor of the orbit were all rapidly removed. At this moment it was found that the superior lobe of the tumor had engaged itself under the inferior compact part of the sphenoid bone, which was excised, and to the operator's great astonishment a little molar or bicuspid, placed transversely in the spongy portion of the bone, was found.

This led to the supposition that this dental heterotopia had been the cause of the tumor, which was enucleated. Such an anomaly is almost unique in man; in animals, the horse in particular, such heteratopic odontoma are of somewhat frequent occurrence.

Six weeks later, a second operation was performed to extirpate the inferior maxillary, by sectioning the soft parts from one angle to the other on a level with its inferior border, and dissection of the periosteum and of the tumor on both sides of the bone, together with bilateral section of the ascending rami and removal by pieces of the tumor which occupies the totality of the bone. The operation was completed by detaching from the symphysis the muscles which are there inserted, and cutting in the median line, the periosteum, which covers its inferior border. At this point a canine tooth was found placed in a transverse direction. This heterotopia is so much more interesting, as the teeth of the lower maxillary were complete in number.

The operation was a success; union by first intention took place, and after fourteen months there is no sign of the return of the trouble. Experience has demonstrated that tumors of this kind are extensively removed, as in the present instance, although there may be sarcomatous or myeloplaxic elements disseminated throughout the lamella and osseous fibrous tissue which compose it, they have very little tendency to recur.

Finally the author came to the following conclusions:

First. The total removal of the bony skeleton of the face can be successfully performed.

Second. Such an operation is indicated in cases of osteo-fibroma having for their origin dental heteropia, when these tumors occupy simultaneously both maxillaries. In such cases a permanent cure can be looked forward to.

Third. The deformation and functional troubles produced by it, can be easily corrected by prosthetic dentistry.

At the last meeting of the Society, Dr. Tuffier reported a new cure for fistulæ, consecutive to nephrotomy. The method originated as follows: a man was admitted in the hospital wards of Prof. Guyon, the urinary specialist, complaining of renal and vesical pains, which he had experienced for a long time; on examination it was found that a calculus was present in the bladder, the patient was then subjected to several sittings of lithotrity, stone crushing.

The immediate results were good, but soon a very intense pain appeared in the right lumbar region, while the general state

of the patient became very alarming, and it was then thought certain that serious renal complications had occurred. On July 13, nephrotomy was performed. No renal purulent abscess was found, but the pelvis of the kidney was filled with uric acid calculi, which were removed; no pyelonephritis existed; one portion of the incision was sutured, and a drainage-tube was kept in communication with the pelvis.

Cure was obtained without accidents, except the persistency of a urinary fistula. Injections of tincture of iodine into the fistulous tract were resorted to, and iodine was found in the urine, which proved that the ureter had remained permeable; on the other hand, the renal lesion had remained aseptic. The opposite kidney, it must be said, was strongly suspected; under such conditions, nephrectomy could not be recommended, and the fistula left to itself. Dr. Tuffier thought otherwise; the whole fistulous tract was exposed, the thickened portions were excised, and particularly the intra-renal fistula, and the raw surfaces were then sutured together; the operation proved to be a complete success.

This operation, however, could not be applied in every case, as it requires the existence of a permeable ureter and also an aseptic condition of the kidney. If nephrotomy is practiced on an aseptic calculous kidney, it will be easy to make it followed by a suture of the divided perenchyma through the operation. In such cases, the fistula will rarely occur.

Fistulæ are much more frequent in cases of suppuration of the kidney, or pyelonephritis; septic fistulæ are the ones that necessitate nephrotomy, and in that case, if the ureter is hardly permeable, the aseptic condition of the renal sac is very difficult to obtain, hence Dr. Tuffier's operation would not be very successful; and it would only succeed if the renal lesion could be rendered aseptic; still it is certainly a true fact that the paring of the edges of a renal fistula, followed by a suture, can be followed by successful results.

New York has 574.88 miles of streets to clean, and there are collected half a million cubic yards of street-sweepings and one and one-half million cubic yards of garbage and refuse yearly, at an annual cost of about one million dollars.

PERISCOPE.

Antipyretics in High Fever.

Dr. H. P. Wenzel, in an article dealing with the value of antipyretics in high fever, in the *Virginia Med. Monthly*, Jan., 1890, concludes as follows:

1. High fever, *per se*, is not inimical to life, but destructive to foreign organisms in the system.

2. High fever caused by pus, sanies, or detritus, etc., cannot be influenced by antipyretics; but promptly yields as soon as the pus, etc., is removed, and the parts are kept aseptic afterwards.

3. The pyrexia of cyclical or self-limited diseases is but little influenced by antipyretics.

4. In cholera, cholera morbus, and in all septic conditions of the alimentary tract, antipyretics are useless. Antiseptics are required notwithstanding the high fever. Typhoid fever is no exception to this rule.

5. In the exanthemata, pyrexia falls when the eruption appears irrespective of administered antipyretics, and in non-surgical acute brain diseases they are worse than useless.

6. In the diseases of infancy and childhood, careful attention, supervision of the diet, baths, and an aseptic condition of the digestive tube—in other words, common sense treatment—will be followed by better results than with the unlimited use of antipyretics.

7. Antipyretics frequently fail to reduce pyrexia; their use has in many instances caused increased pyrexia, collapse, and in some cases, death.

8. There is no pure antipyretic, all being also endowed with anodyne, analgesic, tonic, and other properties; hence,

9. It is impossible to estimate their antipyretic power or value.

10. Many remedies, although not classed generally as antipyretics, reduce temperature in fever indirectly.

11. Quinine causes protoplasmic shrinking.

12. The aniline derivatives reduce pyrexia at the expense of the blood.

13. The expectant plan of treatment plus sponge baths, is followed by better results than the unlimited uses of antipyretics, and the damage to the system much less.

14. Enterprising chemists invent drugs, and dictate to the medical profession for

what they shall be used; the medical profession should awaken to the importance of its dignity.

Syphilis of the Spinal Cord.

At the last meeting of the Society for Psychiatry and Nerve Diseases, of Berlin, Dr. Siemerling gave an address on the clinical and anatomical aspects of syphilis of the spinal cord, based on the careful observation of three cases. The first was that of a woman, aged 47, an excessive drinker. She had undergone several courses of treatment of syphilis by injection. She was first attacked with paralysis of the lower limbs. The patellar reflex was diminished. Disturbance of sensibility was so far present that the sense of pain was diminished on the left thigh, with slower conduction of sensation. The electrical examination revealed nothing. She had incontinence of urine and feces. The knee-phenomenon was peculiar; sometimes one knee was better and the other worse, and sometimes the order was reversed. Transverse myelitis of the dorsal part of the cord was diagnosed. The autopsy revealed considerable thickening in the pia of the dorsal portion. From this thickened pia a rather large cell infiltration passed over the substance of the cord, reached the anterior horn, passed through this, whereby the ganglionic cells disappeared. The tumor appeared to consist of true granulation tissue. In the surrounding parts was a myelitis of the nerve fibres.

The second case was that of a woman, aged 65. It was not determined when she became infected. In 1878 she had secondary symptoms, and underwent an inunction cure. In 1882 she had double vision, and in Dec., 1887, paresis of the legs. Later in the month she had a right-sided apoplectic attack, which disappeared in a few days without leaving any marked mental trace. In Jan., 1889, was admitted into the Charité with dementia, irritability, right-sided facial paralysis, left paresis of the lower limb, reflex immobility of the right pupil, left ophthalmoplegia externa and interna, bilateral exaggerated knee-jerk. Condition of sensibility negative. Section revealed a softening centre in the left corpus striatum and lenticular nucleus, gummata in the nucleus and left thalamus opticus. In the spinal cord was degeneration of the posterior column, arising in gummatous tumors in the lower dorsal portion, and descending degeneration of the lateral tracts.

In the third patient, female, aged 42, the period of infection was unknown. Antisyphilitic treatment had not been systematic. Her way of life had been very poor. In March, 1887, she had paralysis of the left side of the body, with rapid improvement. Again in July, 1887, which was longer in passing off. In January, 1888, several attacks, in February another, with loss of consciousness, from which recovery quickly took place. Admitted into hospital on account of general weakness a month later. There was then dementia, left hemiplegia. Knee-jerk had disappeared. Improvement under antisyphilitic treatment. Later she had repeated apoplectic and epileptic attacks, of the latter as many as eighteen in a day. She afterwards became worse. The autopsy revealed softening of nearly the whole of the left hemisphere. Encephalitis. A large number of hemorrhages in the corpora quadrigemina. In the medulla left-sided descending degeneration, also of the right anterior pyramidal tract. The chiasma was full of infiltration. In the spinal cord the condition was more extensive than in the two preceding cases. The pia was everywhere thickened and infiltrated; from this bands passed into the substance of the cord, often into the gray substance, completely destroying the structure. The pia was firmly adherent at these parts. In the lower portion enormous growths as far as the anterior cornu. Right descending degeneration in the external pyramidal tracts, in the anterior commissure, etc. The vessels, both arteries and veins, were changed. The endothelium was destroyed by clots, the adventitia infiltrated, etc.—*Medical Press and Circular.*

Etiology and Treatment of Blepharospasm.

In an essay on this subject, in the *Archives d' Ophthalmologie*, Dr. Valude points out that blepharospasm of nervous origin, not preceded by traumatism and unaccompanied by any irritation of the external parts of the eye, is an obscure phenomenon, and has by different authors been regarded as of a reflex nature and as allied to hysteria. He proceeds to show that in one class of cases it is associated with ocular lesions, and caused by photophobic conditions that are dependent upon phlyctenular

keratitis and occur in scrofulous children. For this he agrees with M. Gayet in adopting forcible extension of the orbicularis palpebrarum muscle, and with Abadie in employing massage of the muscle with vaseline, traction being made chiefly in a radiating direction. Of course the treatment in general use for the primary disease must be practiced in addition. The second form of blepharospasm corresponds to those cases which are associated with troubles of the duct or cicatrices of the skin, on the one hand, and to hysterical, psychically degenerated and monomaniacal patients, of which he gives an instance, on the other hand. The treatment appropriate to such cases should be carried out. He refers to a case reported by Faus in which good results were obtained by the injection of a solution of curara of the strength of 1 to 100, thirteen drops being injected three times daily. It is remarkable that in this essay no notice is taken of the influence of hypermetropia and astigmatism in inducing blepharospasm. Some cases at least can be cured by the use of appropriate glasses.—*The Practitioner*, Jan., 1890.

Contagious Pneumonia.

Dr. F. Mosler, in a paper read before the Greifswald Medical Society, gives details of a series of cases of acute pneumonia in a family where there seemed every reason for believing that contagion was the cause of the spread of the disease. The patients were all attacked during the last fortnight of January, 1889, the first to fall ill being the father, who died on Jan. 22, the fifth day of his illness. On this day his wife was attacked, and she too succumbed on the fifth day of the disease. Whilst she was ill, her son, who constantly visited his parents during their illness, himself was attacked on the 26th. He was 30 years of age, strong and temperate, but succumbed on the twelfth day of the attack. Further, his sister, who had come from Arendsee, near Stralsund, to be with her sick parents, and who stayed in their house from Jan. 22 to Jan. 26, was attacked at Arendsee on Jan. 29, and was admitted into the Griefswald Hospital. She alone recovered. Dr. Mosler points out that the parents' house was dry, the two rooms they inhabited were well ventilated and clean, and that there had been no illnesses in the house within the past five years. He thinks the father must have acquired his pneumonia outside, and that the disease was communicated in turn to the members of his family by contagion through the sputa. In the case of the son a *post-mortem* examination showed that the form of pneumonia was not the typical one: it was more lobular, was accompanied by a hemorrhagic pleurisy, and by swelling of the spleen. Moreover, an examination by Professor Grawitz of some of the fluid withdrawn from the lung of the daughter during the height of the disease resulted in the discovery of bacilli resembling those of rabbit septicemia, but neither the pneumono-bacillus of Friedländer nor the pneumono-coccus of Fränkel was found. In the case of the son the blood from the heart yielded a similar micro-organism. Dr. Mosler thinks that such facts, as well as the peculiarities of the morbid anatomy of the latter case, suggest the occurrence of a special form of pulmonary inflammation, owning a cause different from that of the ordinary form. He sees in such cases a reason for believing that many varieties of poison may give rise to pneumonia. But the main lesson from the cases is that of contagiousness, and the need for the careful disposal and disinfection of the sputa, which he believes to have been the infective medium in these cases. He refers to recent contributions of Finkler and Cantani on infectivity of pneumonia, the latter recording some striking instances where the disease was more of the lobular than the lobar type.—*Lancet*, Jan. 25, 1890.

Salpingotomy in Cases of Closed Utero-Vaginal Canal.

G. Leopold gives the history of several cases of atresia of vagina. In one, after futile attempts to form a vagina, the left tube and both ovaries were removed with complete relief to symptoms. In two other cases of hematosalpinx with atresia, the incison of the closed vagina was successful. In a fourth case an enlarged rudimentary horn was taken for an ovarian tumor. Laparotomy showed the true nature of the case, but the tumor was not removed. Later the tube began to be enlarged from increased pressure at each menstrual period, and the pains became so severe that a second laparotomy was necessary at which the right tube and ovary were removed. The patient remained cured.

When the menstrual blood collects in the

vagina, Leopold advises incision and allowing the contents to drain slowly away. If hematometra exists, it is opened from the vagina. If the enlarged tubes do not disappear, or if they swell at the next menstruation, their early removal by laparotomy is indicated. If in the absence of the vagina, the attempt to reach the hematometra is unsuccessful, the hematosalpinx should either be punctured from the vagina, or removed by laparotomy.—*Boston Med. and Surg. Journal*, Feb. 6, 1890.

Hair Wash.

Dr. Liebreich, in the *Therapeutische Monatshefte*, Jan., 1890, speaks highly of the following hair wash:

℞	Spirit. etheris	f℥ij
	Tinct. benzoini	f℥jss
	Vanillini	gr. i
	Heliotropini	gr. iij
	Ol. geranii	♏j

M. Sig: One tablespoonful of the wash should be rubbed into the hair, which is afterward well dried with a towel. If the hair become too dry, lanolin pomade should be used. The mixture must not be used near a flame.

Lactation during Menstruation.

Ever since the days of Hippocrates and Galen, the belief has obtained that perfect lactation was inconsistent with the return of the menses. In a paper recently read before the Royal Medical Society of Vienna, by Dr. Schlichter, the result of this belief is seriously called in question, and there seems good reason to conclude that the effect of menstruation on the milk is not necessarily detrimental. The author obtained a number of samples of milk furnished by menstruating nurses and analyzed them with the result of showing that, as a matter of fact, the relative portion of casein had undergone no diminution. The quantity of fat was variable, but the variations did not exceed those met with in non-menstruating lactifers, and maximum occurred just as often during a menstrual period as after or before. On only one occasion did the proportion of the non-fatty constituents diminish to the extent of 1.5 per cent., and the proportion remained practically the same. He remarked that, in the cow, the advent of the rut does not produce any noteworthy variations in the quality of the milk. Taking the results of the analyses as a whole, it was found that the variations in the quality of the milk before, during, and after menstruation were not as marked as in milk drawn at different hours of the day under ordinary circumstances. An examination of the infants, moreover, failed to demonstrate any constitutional disturbance or failure of nutrition provided the menses did not return earlier than the sixth week. Although we are not prepared to endorse the very categoric conclusions of the author, it may be admitted that the occurrence of menstruation in nursing women is less hurtful than has generally been believed, but it is none the less a matter of clinical observation that their recurrence does diminish the quantity of the secretion, and may even cause it to cease at an earlier date. The supervention of pregnancy is under any circumstances a barrier to continued lactation, as much in the interest of the mother as in that of the child.—*Med. Press and Circular*, Jan. 22, 1890.

Mouth-Breathing and the Teeth.

Dr. Scanes Spicer read a paper at the last meeting of the Odontological Society of London, upon "Nasal Obstruction and Mouth-Breathing as Factors in the Etiology of Disorders of the Teeth." In the course of his remarks he said he had been struck with the frequency with which carious teeth were associated with obstruction of the pharynx and enlarged tonsils; so much so that he had made it a routine practice to examine the teeth in all cases of nasal obstruction, and he believed that there existed a relation between them; and he further is of opinion that there is a generic relation between some cases of vaulted arch, narrow jaws, and irregular teeth, and nasal obstruction. Normally we should breathe through the nose, so as to warm and filter the air respired. All animals, savage races, and young infants do so; but a large number of adults of civilized nations breathe through the mouth, because they have some obstruction of the nasal passages—erectile tumors, permanent catarrhal affections, polypi, post-nasal adenoid growths, etc. Mouth-breathing, he said, as a predisposing cause of caries of the teeth, came into action in various ways. The teeth were exposed to a current of air of a much lower temperature than that of the body, which would tend to cause in-

flammation of the periosteum and pulp of a tooth; the cold dry air produced congestion of the mucous membrane, with a secretion of stringy acid mucus; and the rapid evaporation of water which takes place when the mouth is constantly open inspissated this mucus, which so formed a fertile soil for the development of micro-organisms. Again, when sleeping with the mouth open, the tongue falls back and the parotid secretion finds its way directly through the pharynx instead of bathing and washing the teeth. With reference to the so-called V-shaped maxilla, Dr. Spicer thought that many cases might be traced to mouth-breathing, the muscles of the cheek pressing unduly upon the soft alveoli when the mouth is open.—*Lancet*, Jan. 8, 1890.

A Leech in the Larynx.

Prof. F. Massei, in an interesting article on foreign bodies in the air passages, in the *Archiv. di Laryngolog.*, reported among other noteworthy cases that of a man who had suffered since a fortnight with profuse hæmopteses. He came home exceedingly weak, and dated the beginning of his trouble from his swallowing some water from the water-casks of a vessel upon which he was sailing. At the laryngological examination a leech was found, attached to the right ary-epiglottidean ligament. It was at once removed, and the symptoms relieved.—*Intern. Journ. of Surgery*, Jan., 1890.

Menthol in Acute Rhinitis, and other Affections of the Throat and Nose.

According to the experience of Dr. Lennox Browne, of London, in the *Medical Press and Circular*, Jan. 8, 1890, the vapor of menthol checks, in a manner that is hardly less than marvelous, acute colds in the head, and is also to be recommended with a certainty of success, if used on its first onset, in arresting or as a preventive of infection in epidemic influenza, and this even for cases in which the nasal symptoms commonly associated with the word influenza are not manifested.

Menthol exerts its action in the following manner:

1. It stimulates to contraction the capillary blood-vessels of the passages of the nose and throat, always dilated in the early stages of head cold and of influenza.

2. It arrests sneezing and rhinal flow.

3. It relieves, and indeed dissipates, pain and fulness of the head by its analgesic properties, so well known by its action when applied externally to the brow in cases of *tic douloureux*.

4. It is powerfully germicide and antiseptic. It thus kills the microbe of infection, and prevents its dissemination.

The remedy may be employed by means of a general impregnation of its vapor through a room or house, or locally to the nostrils and air passages; for both which purposes there are several methods.

First: A 10 to 20 per cent. solution of menthol in almond oil, in liquid vaseline, or in one of the many other odorless paraffin compounds, can be sprayed into the nose or throat, or about a room.

Second: By placing twenty or thirty grains in an apparatus specially designed by Rosenberg for administering the drug in cases of laryngeal consumption by inhalation, in the form of vapor mingled with steam.

Third: By placing a similar amount or one or two drachms of the oily solution in a Lee's steam draft inhaler, or bronchitis kettle.

Fourth: By placing a saucer of water containing a similar quantity of the crystals over a gas burner in the hall, by means of which the whole house is kept constantly permeated with the drug.

Fifth: But by far the most convenient method for personal use is to carry always the ingenious pocket menthol inhaler known as Cushman's, which should be used not only on the first approach of an attack, but three or four times a day during an epidemic, and always in cold-catching weather by those subject to head colds.

The instrument consists of a glass cylinder four inches in length, half an inch in diameter, and open at both ends. The tube contains crystals of menthol closely packed and prevented from escape by perforated zinc and cork. The opening at one end is twice the size of the other, the larger being intended for inhalation by the mouth the smaller for the nostril. It is not to be simply smelt, but well sniffed or inhaled, so as to cause some tingling or smarting, a sensation which is quickly followed by that of coolness, and openness of the previously "stuffed" and heated nostril.

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ASYLUM ABUSES.

From time to time we have referred in the REPORTER to accusations brought against asylums for the insane, most of which on investigation have proved to be utterly unfounded. Some of these charges, however, seem to have in them a sufficient basis of truth to require careful investigation. This was the case in regard to alleged ill-treatment of inmates of an asylum for the insane not long ago in one of the Western States, and a very serious charge has recently been made against the State asylums in New York. The first annual report of the State Commission in Lunacy for the State of New York was presented to the Legislature on January 29, and it contains some very serious charges against the management of these institutions. From this report it appears that on October 1 there were over fifteen thousand persons in public and private insane asylums in the State of New York, with over five hundred idiots in the asylums provided for this class of sufferers. These are maintained at a cost of over one million dollars a year, which represents the expense of a number of institutions of varying degrees of efficiency.

As in most other States, it is complained that the asylums in New York are greatly overcrowded, and this, in that State, is charged to the fact that it is customary to admit private patients who pay good rates for their care and treatment, so as to exclude from the benefits of the State hospitals patients who are unable to pay in the same way. If this is a general custom, there can be no doubt in regard to the judgment of the community upon it as soon as it comes to be known; for no greater wrong can be conceived than that establishments intended for the benefit of the poor should be utilized for the treatment of individuals who might as well be cared for in institutions established for commercial reasons, and which cannot and will not treat those who are unable to pay their way. More than this, the admission of pay-patients in State asylums ought not to be permitted at all, because it introduces an element of temptation to the managers of those institutions, affording a way to make a good showing in the cost of their management by adding to their receipts the earnings derived from pay-patients. This is a temptation which would require a very high degree of virtue to resist, a somewhat higher degree than is supposed to reside in some managers of public and State asylums.

The report of the New York Commission on Lunacy points out "lamentable instances of squalor and neglect," and contains statements which are usually to be found only in the mouths of prejudiced relatives of the inmates of insane asylums, or newspapers given to exaggeration. This is a very serious matter, and it is to be hoped that the members of the profession in New York will interest

themselves in the subject, and either disprove these charges or take some steps to indicate their disapproval of what, if true, can only be designated as an outrage. It certainly seems time for something to be done when so respected a body charges that:

"In no one of these counties are the insane, in any proper sense, under the control of a medical officer. Only two have resident physicians. In only four or five are daily visits of a physician required by law. None of the superintendents of the poor or keepers are in the slightest sense qualified for their positions. Restraint upon patients is left to the discretion of untrained attendants. Patients are made to wallow all night in beds whose uncleanliness defies description. It is a common practice to bathe several patients in the same water. This has been done in spite of the fact that most lunatics suffer from skin disease—many having loathsome ulcers. The ignorance of the keepers is shown by the fact that none of them seemed to disapprove of this shameful and horrible practice. In many instances the sexes are not separated properly, as is proved by the birth not long ago in one county poorhouse of a child having a lunatic father and an idiot mother."

The Commission believes that the environments of patients in the average county poorhouse would shortly produce lunacy in any sane person confined there. A large number of most shocking instances are related, which are of a nature too horrifying and filthy to be suitable for general publication.

These matters are of a sort which interest every member of the medical profession, as well as the members of the community. Medical men have no greater actual interest in them than the general community, but they are in a position to do more against abuses which exist, or to prevent the origin or spread of abuses where they have not been found. For this reason our readers will find it interesting to know what is going on in so important a State as New York, and, perhaps, to inquire whether or not similar instances calling for investigation are occurring nearer their own homes.

HYPERTROPHIC ULCERS OF THE VULVA.

At a meeting of the New York Academy of Medicine, December 19, 1889, a most interesting pathological discussion was introduced by a paper, read by Dr. R. W. Taylor, in which he spoke of the manifestations of chronic inflammations, infiltrations, and ulcerations of the external genitals of the female, especially as bearing upon the use of the terms lupus and esthiomène of these parts.

Dr. Taylor was prompted to write the paper (which is published with beautiful illustrations in the *N. Y. Medical Journal*, Jan. 4, 1890) because of the confusion which had arisen in the study of these affections from the use of the term esthiomène, meaning a condition of the external female genitals similar to lupus of the face, first employed by Huguier about 1849, and repeated in all writings on the subject to a greater or less extent since that date.

The views entertained to-day in regard to simple infiltrations and hypertrophic and ulcerative lesions of the vulva is: 1, that they are identical with lupus, or the esthiomène of Huguier; 2, that they are the result of syphilitic processes; 3, that they are the result of some indeterminate ulcerative process; 4, that some may be the result of a tubercular infection.

Dr. Taylor's study of this subject began in 1870, in Charity Hospital, where there is a relatively large amount of material of this kind coming under observation, and he soon came to the conclusion that the subject would have to be studied anew, untrammeled by the older writings. The result of his investigation was the conclusion that perhaps the greater number of chronic deforming vulvar lesions are due to simple hyperplasia of the tissues induced by irritating

causes, such as inflammations and traumatism; that chronic chancroid is a cause in a certain proportion of cases; that many cases are due to syphilitic infiltration; and that other cases are caused by hard œdema that often complicates and surrounds an initial lesion of syphilis. Many cases are due to simple hyperplasia in old syphilitic cases with local lesions, while some cases, also in old syphilitics, are due to hyperplasia resulting only in vulvitis.

The first class includes papillary growths, vegetations, and hyperplasias which occur singly or in numbers, chiefly around the urethral and vaginal orifices, but which are also found in the vulvo-anal region. Clinically and pathologically the larger growths are only exaggerations of the smaller. The smaller ones might well be called hypertrophied caruncles and simple hyperplastic tumors, varying in density and vascularity. Larger hyperplasias and vulvar hypertrophies of simple origin may arise from traumatism, vulvitis, vaginitis, gonorrhœa, or masturbation; their appearance varies greatly, and this is due largely to the difference in shape of the vulva in different women.

In justice to Dr. Grace Peckham, who also has investigated this subject, it must be stated that she has suggested that the name lupus or esthiomène be set aside, and in its stead the term hypertrophic ulcer of the vulva be used, prefixing, as the case may be, the adjective syphilitic, tubercular, or lupoid, where the diagnosis is possible.

This appears to be a correct term, although there is a difference of opinion in regard to the presence of evidences of tuberculosis in these ulcers. At any rate it is worth while to call attention to them in order that they may be subjected to wider and more thorough investigation. The readers of the REPORTER may have opportunity to add materially to the limited stock of knowledge on the subject now possessed by the profession, and to clear up what is still by no means as clear as it might be.

DANGERS OF CELLULOID.

A curious accident from the combustion of celluloid, reported in the *Bulletin Médical*, June 2, 1889, may serve to call attention to the dangers connected with its use in the household. It seems that a girl, wearing a hair-comb of celluloid, was working near a very hot fire, when all at once her head was seen to be enveloped in flames. These were promptly extinguished, but not until the child was severely burned. The circumstances of the accident were inquired into by M. Leon Faucher, and made the basis of an interesting report to the Council of Hygiene. From this report we gather that celluloid is made from gun-cotton, by treating the latter with alcohol, then mixing with it some camphor, and subjecting the whole to considerable pressure. The temperature at which combustion takes place is relatively low—about four hundred degrees Fahrenheit. Light celluloid, that is, celluloid to which no coloring matters have been added—ignites at about fifty or sixty degrees higher. As regards the character of the combustion, it is said to be almost instantaneous, and to be accompanied with no light.

The accident in the case referred to must be regarded as unique, especially in the method of its production; for while it is quite possible that a person wearing an article of celluloid might approach dangerously near an exposed gas-jet, or stoop carelessly over a lamp, it can happen but rarely that, with such an article on, he or she would be near a fire hot enough to ignite it. Faucher, indeed, has been unable to find any record of a similar case.

Celluloid is now used for making so many things designed for domestic or toilet use, such as knife and fork handles, combs, backs of hair-brushes and hand-mirrors—that it cannot be amiss to urge caution in bringing them near a fire, especially since several fatal accidents have been reported. A careless or ignorant house-maid—who is as likely as any one to have about her objects

made of celluloid, if only collars and cuffs—might be the means of inflicting great damage upon herself or others. Of course this class of persons cannot be reached through a medical journal, except very indirectly; but it would be well within the province of the family physician, in making his rounds and seeing articles of the kind described, to refer to the possible danger lurking in their use; and he could do this without either offending the intelligence of his patients or unduly exciting their fears.

TYPHUS FEVER AT NEW YORK.

The daily papers report that two cases of typhus fever have recently passed through Castle Garden, New York, one of the patients being a passenger from a Mediterranean port, who died Jan. 7, while the other came from Antwerp, and was in the hospital when this was written.

There seems to have been some unnecessary concern in regard to these cases, as witnessed by the fact that it is recorded that the men had communication with scores of other immigrants, and there was apprehension of others contracting the disease from them. There is so little real danger in the case that we trust we have now heard the last of it and that nothing will be done to exaggerate the alarm which the occurrence might easily give rise to.

Book Reviews.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the Reporter.]

STUDENT AIDS SERIES, Volume IV. Obstetrics, by Samuel Hall, M. D., pp. 142. Gynæcology, by Alfred S. Gubb, M. D., pp. 76. New York: G. P. Putman's Sons, 1889. Price, paper, 25 cents; cloth, 50 cents.

These allied subjects have been treated together in one small volume by their English teachers in a manner deserving of a better fate at the hands of the American publishers. "Obstetrics" is so poorly and finely printed that it may well be an aid to the study of myopia, rather than of obstetrics. The volume is without illustrations of any sort, when they would have aided greatly in elucidating the text. Of the many compends on these subjects, this "Aid" is especially concise, clear and practical, and in spite of the ocular difficulties connected with the obstetric section, it will well repay careful reading and reference by the student.

Literary Notes.

—Dr. William B. Atkinson is editing a Medical Directory and Intelligencer of the States of Pennsylvania and Delaware, which will be the eighth edition of what was formerly the *Philadelphia Medical Register and Directory*. The new Directory will contain lists of the profession, giving, as formerly, the place and date of graduation, office hours, and residence, as far as these can be obtained, for the city of Philadelphia, the States of Pennsylvania and Delaware, and the city of Camden and vicinity.

—Charles Scribner's Sons announce that they have acquired from Mr. Henry M. Stanley all the American rights for his personal narrative of the expedition for the relief of Emin Pasha. Prior to the appearance of the complete work, *Scribner's Magazine* will publish an article upon his last journey by Mr. Stanley. It will be illustrated and is certain to be as important a contribution as any that has ever appeared in an American magazine.

—E. B. Treat announces the early delivery of the 8th yearly issue of the *International Medical Annual* (for 1890). Its thirty-seven editors in the several departments are to give a summary of new remedies alphabetically arranged, also a *resume* of new treatment in dictionary form, with references to the medical literature of the world pertaining to the year's progress of medicine.

—Messrs. Johnson Brothers, of Denver, have purchased the *Denver Medical Times* and will publish it in future. Dr. Thomas H. Hawkins will still retain the editorial control of the journal.

Correspondence.

Inversion of Uterus.

To the Editor.

Sir: The report of a case of inversion of the uterus by an acquaintance in South Carolina, which terminated fatally, recalls a case of this rare occurrence that came under my treatment several years ago, in which I had the fortune to be able to promptly reduce the inversion. I was then practicing medicine in West Newton, Pa.

I received a telegram from Dr. N. to come at once to his assistance, seven miles distant. I went by train within the hour, supposing I had a case of surgery, as often happened in the mining hamlet in which I was called. I was surprised and shocked when I found a case of inversion of the uterus. The woman, a German and a primapara, had a peculiar history: both her mother and maternal

grandmother had died in child-bed—with first child—in Germany, from what cause she could not tell. She had approached her confinement with great dread. Dr. N. said everything went well, the child was born after a moderate labor and all were congratulating themselves. The physician was making careful traction on the cord and kneading the womb gently through abdomen, when suddenly the placenta came with great rush of blood, and when he got blood and placenta away discovered the womb protruding from vagina. There was no further hemorrhage. I arrived two hours afterward. The patient was pallid, her pulse feeble and rapid (150); everything indicated exhausting hemorrhage. She had received stimulants, and I gave her morphia hypodermically. I found the fundus protruding from vagina, and at once began efforts at reduction without anesthesia. I tried to first reduce the fundus by applying my knuckles. Finding that unsuccessful, I grasped the mass in my hand and began attempting to reduce first the part last everted, and after several minutes I was gratified to find the parts returning, and in less than thirty minutes had the satisfaction of feeling my hand within the entirely restored womb. I did not withdraw it until I had vigorous contraction. The patient was so nearly unconscious from loss of blood that she complained but little of the pain of taxis. She made a slow but complete recovery. Dr. N. endeavored to learn what her mother and grandmother died of, but was never, as far as I was informed, successful. Dr. N. is now dead, and the case has passed out of my knowledge.

Yours truly,

T. H. Patten.

The Porro-Cæsarean Operation.

To the Editor.

Sir: Mr. Lawson Tait, in the *British Medical Journal* of Jan. 18, 1890, uses the following language: "How any proceeding comes to be called a 'Porro-Cæsarean operation' is to me inexplicable. Dr. Harris says I claim to have done three such. I claim nothing of the kind." "I have seven times amputated the pregnant uterus, and six of the patients are living." Then are we to infer that he did not open and evacuate the uterus—*i.e.*, perform a Cæsarean section before the supra-vaginal amputation of the uterus and ovaries?

Professor Porro, in 1876, gave the following title to his operation: "*Utero-ovarian amputation as completive of the Cæsarean section.*" The following are the titles by which this operation has been called by other operators in Italy: "*Istero ovariotomia cesarea.*" "*Amputazione cesarea dell, utero.*" "*Amputazione cesarea utero-ovarica.*" "*Taglio cesareo metodo Porro.*" Dr. Heusner, of Barmen, Germany, operated on April 15, 1888, and reported the case as "*eine modification des Porroschen Kaiserschnittes*" (a modification of the Porro-Cæsarean section), the stump having been dropped in. Dr. Ulietti, of Bergamo, operated May 17, 1884, and June 4, 1885, and reported "*Due operationi cesaree Porro.*" Dr. Paul Grossmann, of Omaha, operated on May 10, 1882, and reported the case in the *American Journal of the Medical Sciences*, October, 1883, p. 477, under the title, "*A modified Porro-Cæsarean operation.*" He also dropped in the stump.

If Mr. Tait thinks that the supra-vaginal amputation of the uterus is entirely dissociated from the Cæsarean part of the operation he will not find many to believe with him. According to his ruling, if a woman ruptures her uterus, and the dead child is removed by the knife from the abdominal cavity, a subsequent removal of the uterus would be a Porro operation. I protest against such a false classification as this, and loading the far less fatal operation of Professor Porro with such a death-rate of mothers and children. It was to avoid the improper use of the name of Porro that led me to adopt the compound title of Heusner, Grossmann, Ulietti and others, dating several years back. A "Porro operation" is a Porro-Cæsarean, and is erroneously called a Porro.

Yours truly,

Robert P. Harris, M. D.

329 S. 12th St., Philadelphia,
February 6, 1890.

Sweat-bands in Hats.—Sweat-bands of hats may contain even twenty-eight per cent. of fatty acids, which in summer may penetrate into the forehead and cause inflammation, and corrode deeply into the skin. Rub with burnt magnesia every little while, so as to leave a small film on the band; wipe it off with a cloth before applying again.

NOTES AND COMMENTS.

Long Fastings and Starvation.

The sensation of hunger is a painful feeling of uneasiness and weakness. It is a general feeling, but is localized apparently in the stomach. Many ancient authors regarded it as a local sensation. Some said that the gastric fluid became more acid and produced a burning feeling in the stomach; others, that a contraction of the stomach took place. But, although the sensation of hunger is related to the stomach, it is really general. While it is sometimes alleviated by swallowing earth and stones, such inert substances may deceive it, but do not appease it. It has, moreover, been experimentally determined that the feeling of hunger is not abolished after cutting the pneumogastric or sensitive nerve of the stomach. So, in thirst we feel a dryness in the back part of the throat. The local sensation is deceptive, for thirst does not depend upon any condition of the mucus of the pharynx. It is caused by the exhaustion of the watery elements of the blood. It is therefore removable by injections of water, and by bathing, when water is absorbed by the pores. If hunger is not satisfied, it disappears after a certain length of time. The most intense suffering is endured during the first twenty-four hours, after which the pain diminishes. The characteristic phenomenon exhibited by an animal subjected to starvation is the constant diminution of weight. Dr. Charles Richet has made many experiments on this loss, comparing animals of various sizes, and has determined that the function of dehydration—or reduction of weight—is in direct relation with the size of the animal. Carnivorous animals appear to bear fasting better than herbivorous kinds. The latter eat nearly all the time, and are ill when they have to stop; but carnivorous animals, in the wild state, are often forced to endure abstentions of considerable length; and a fast of several days is almost a physiological condition with them. When we examine the phases of the loss of weight of a starving animal, we find that it loses much during the first days. Then a moderate drain sets in. Again, in the last days considerable loss takes place, and this is the forerunner of death. Cold-blooded animals can support inanition during a prodigiously long time. M. Vaillant tells of a python weighing seventy kilogrammes that lived twenty-three months without eating, and M. Colin of a rattlesnake that lived twenty-nine months. Redi mentions a tortoise that lived eighteen months, and a frog sixteen months, without food. Dogs can endure abstinence, on the average of thirty days; cold-blooded animals, twice as long. With both classes the fatal limit is reached when the loss of weight amounts to 40 per cent. This point is reached by the warm-blooded animal ten times as quickly as by the cold-blooded one. Man is subject to the same conditions in case of fasting or starvation as warm-blooded animals; and the influences of size, age, and nervous constitution are similar upon him. — *Revue Scientifique; Popular Science Monthly*, Feb., 1890.

Total Resection of Facial Bones.

At the last sitting of the Academie de Médicine, M. Péan introduced the subject of total resection of the bones of the face, and cited the case of a woman thirty-two years old, whose sphenoid, three maxillaries, and malar bones were invaded by an osteo-fibroma, which began to appear nine years previously. In 1884 the right superior maxillary was resected by one of his colleagues and four years subsequently the patient came under his notice. At this time the face was simply hideous to look upon; the left upper maxillary was the size of the head of a newly-born child, and the lower jaw was swelled considerably, the cheeks, eyelids, and nose were sunken, and the several cavities obstructed, so that mastication, phonation, and vision were much hindered. An operation was performed by making a median incision along the nose and through the upper lip, which permitted the detaching of the vestibule of the mouth and the cheeks with the bistourys, as soon as the tumors were brought to view and ablated successively. It was thus that the superior maxillaries, the malars, the pterygoid apophyses, and the floor of the orbits were rapidly removed. The upper lobe of the tumor was then perceived to be engaged under the sphenoid bone, and when the latter was resected a molar tooth was found embedded in the spongy tissue, which led to suppose that this tooth was the cause of the neoplasm. Six weeks subsequently the lower jaw was removed, and the result was favorable. The wounds healed by first intention, and no relapse took place. An

apparatus ingeniously contrived permits the woman to speak, swallow, and retain her saliva. M. Péan concluded by saying that the result of the case above mentioned proved that total ablation of the bones of the face can be made with success, that the operation was indicated in neoplasms of the extent described, and that a relapse need not be feared.—*Med. Press and Circular*, Jan. 23, 1890.

Dobell's Solution.

In answer to the request of a subscriber, we quote the following from the *National Formulary:*

Dobell's solution, or compound solution of borate of sodium, has the following formula:

Borate of sodium	120 grains
Bicarbonate of sodium . . .	120 "
Carbolic acid, crystallized .	24 "
Glycerine	½ fluidounce.
Water, enough to make	16 fluidounces.

Dissolve the salts in about eight fluidounces of water, then add the glycerine and carbolic acid, previously liquefied by warming, and, lastly, enough water to make sixteen fluidounces. Finally filter.

Fatal Alcoholic Poisoning.

Dr. MacFarlane has recently reported to the Allegheny County (Pa.) Medical Society a case of fatal poisoning by whiskey. A boy, aged 5 years, who was in poor health, while unobserved, drank from a bottle in the room he was in, six or eight ounces of whiskey. This occurred about noon. The child was put to bed to sleep the liquor off. After taking the whiskey the child became blanched and this was followed in an hour or so by purging and vomiting. About six o'clock the doctor saw the patient. He had a rapid pulse and a normal temperature. The pupils were dilated and did not respond to light. There was occasional twitching about the face and slight tremor about the hands and fingers. The breath of the patient had a distinct whiskey odor. Bromide of potassium and coffee were given. When seen again at eleven o'clock the child was in general convulsions, and died about half-past eleven, eleven hours from the time it took the liquor.—*Druggist's Circular*, Feb., 1890.

Plaster-of-Paris Splints.

Dr. Powell, of Toronto, recommends the following method of applying plaster-of-Paris splints for certain kinds of fractures of the leg. "The leg is to be bandaged with cotton batting, which for the purpose is torn into strips four inches wide and applied as a roller. Using the sound leg as a model, to save the injured one from movement, a pattern is cut which will cover in all of the leg excepting a space an inch wide along its anterior aspect. Deep slashes opposite the heel allow the part for the sole of the foot to be brought into a right angle with that for the leg, without forming clumsy folds at the ankle. From this pattern four or five layers of scrim, or from six to nine of cheesecloth are cut. Then, with extension made and the foot properly held, the strips are to be saturated with a cream made by sifting, not stirring, plaster into warm water, smoothed one upon another, applied to the posterior aspect of the limb, interleaved by the slashes at the ankle so as to hold the foot at right angles with the leg, moulded to the part, and then firmly bandaged to it with a cotton roller." "Scrim" is a coarser and stronger material than cheesecloth, and hence a smaller number of layers suffice to make a firm splint. This is a modification of the well-known Croft's splint, and it is recommended as very being easily applied, comfortable, durable, and thoroughly efficient.—*Lancet*, Jan. 25, 1890.

Preservation of Urine for Examination.

In order to arrive at the true condition of a sample of urine, the earlier it is examined the better. It is, however, sometimes impossible to obtain it for examination for many hours, or even days after it has been passed from the bladder, and, under ordinary circumstances, it is then entirely changed. Various substances have been recommended as anti-ferments and preservatives, but all have objectionable features. Accident recently led us to try naphthalin in this direction, and the results were as gratifying as they were unexpected. Though the substance is well nigh insoluble in water, and a crystal added to urine remains unattacked, so far as appearances go, for days, a very minute quantity of it sufficed to preserve a couple of ounces of urine apparently un-

changed for several days, in fact, during the warm weather of Christmas week.—*St. Louis Med. and Surg. Journal*, Feb., 1890.

The Prophylaxis of Tuberculosis.

The question of tuberculosis and its preventive treatment was brought up again at the Académie de Médecine by M. Lancereaux, who said that the conditions which gave rise to tuberculosis were the same as those which presided at the development of any other malady, and were of three orders: predisposing, efficient and determinating causes. As to the efficient cause, it is well known to-day it is the bacilli of Koch, but this even would not be sufficient if there did not exist a certain modification of the organism which is called a *predisposition*. Consequently it is necessary to understand the different circumstances which give rise to this predisposition in order to be able to pronounce on the most effective prophylactic measures. The savages never contract phthisis, and the Kirghis of the Russian steppes and the American Indians have never been attacked with the malady. Tuberculosis did not exist in America before the arrival of Europeans, but gradually it appeared in towns or wherever there was an agglomeration of individuals. What, then, are the causes which favor the development of tuberculosis? Amongst the many he would insist on two which appeared to him as the most exciting: *insufficiency of air and the abuse of alcoholic liquors*. In London the frequency of tuberculosis is in direct proportion to the number of inhabitants in a given space. The same may be said of Paris and every large city. Many authors have stated that in prisons, schools, etc., tuberculosis was very frequent, and also that individuals who have been accustomed to living in the open air, and who from different causes are submitted to inactivity and the influence of confined air, become rapidly phthisic. It is thus that young girls from the country coming to work in towns contracted first anemia and finally phthisis. Of 2,000 cases of tuberculous patients noted in the hospitals, 1,100 were belonging to the working classes living or working in small shops where the air was insufficiently renewed. As to the influence of alcoholism on the etiology of the malady, it was indisputable. For several years his attention was drawn to this subject, and he found that drinkers of absinthe were particularly liable to contract the disease. He was able also to state that drunkards presented a pulmonary localization at the summit of the *right lung*, more developed behind than before, while in others the left lung was the most frequently attacked. Hæmoptysis is frequent amongst the former, while amongst those who contract the disease from other causes the granular form is predominant. M. Lancereaux, in conclusion, said that he did not consider the measures proposed by the Commission as sufficient. Certainly he advocated the destruction of the expectoration as advised, but much more was required. Above all it was necessary to make the authorities understand that pure air was indispensable to the life of man, and that legislation should be reformed as to the construction of houses, the widening of streets, and the proper control of workshops, barracks, colleges, prisons, etc., so that each individual should have his complement of cubic feet of air.—*Med. Press and Circular*, Jan. 22, 1890.

Mind Blindness.

Two cases in which this curious symptom was observed have recently been recorded in the *Archiv f. Psych.*, vol. xxi. In the first, recorded by Lissauer, a man of eighty had complained for a month of inability to find his way about, to tell his own position in a room, and to recognize objects, although his perception of light was scarcely impaired. Although he could not recognize objects by looking at them, he at once perceived and named them by means of tactile or auditory impressions from them. On examination he was found to have absolute right homonymous hemianopsia. He had some aphasia, and could not read, but he could write. Perception and discrimination of colors in this case were preserved. In the second case, recorded by Siemerling, the onset was sudden. At first visual memory only was impaired; but he soon failed to recognize objects, even when he touched, tasted, or heard them. On examination he was found to have absolute right homonymous hemianopsia, together with amblyopia in the left field in each eye. Color sense was lost on both sides. There was also amnesic aphasia. In this case very great improvement occurred, the amblyopia on the left side improved, and color vision returned. In neither case was there any change in the fundus. The asso-

ciation of "mind blindness" with hemianopia, and occasionally with loss of color sense, has also been observed by Wilbrand, Charcot, Swanzy, and others. It is, however, very rare, while hemianopia is not uncommon; and Siemerling's case, where there was amblyopia in the left field, with complete loss of vision in the right, gives support to the hypothesis of Dr. Gowers that it occurs only when the cortical lesion is double.—*Lancet*, Jan. 25, 1890.

U. S. Army Examining Board.

An Army Medical Board will be in session in New York City, N. Y., from May 1 to 31, 1890, for the examination of candidates for appointment in the Medical Corps of the United States Army, to fill existing vacancies. Persons desiring to present themselves for examination by the Board will make application for the necessary invitation to the Secretary of War, before April 1, 1890, stating the place of birth, place and State of permanent residence, and enclosing certificates based on personal knowledge from at least two physicians of repute, as to professional standing, American citizenship, character and moral habits; also, statement of service in hospital from the authorities thereof is desirable. The candidate must be between 21 and 28 years of age, and a graduate of a *Regular Medical College*, as evidence of which, his diploma must be submitted to the Board.

Further information regarding the examinations and their nature may be obtained by addressing the Surgeon-General, U. S. Army, Washington, D. C.

Extra-Uterine Pregnancy.

In an article on the subject of extra-uterine pregnancy, referred to in the *New York Med. Journal*, Feb. 8, Dr. Lopez concludes as follows:

1. The physician should know how, whence and when fecundation is effected.

2. One should recognize in extra-uterine pregnancy the existence of the life of the fetus the same as in normal uterine pregnancy.

3. The only forms of extra-uterine pregnancy are abdominal and tubal.

4. With regard to the termination of embryonal development, whether in extra-uterine pregnancy or in uterine pregnancy in which there has been rupture of the uterus and fall of the fetus into the abdominal cavity with unruptured membranes, if such pregnancy has continued to term, extraction should be performed by the appropriate operation.

5. If the fetus has died, whether in cases of extra-uterine pregnancy or in those in which there has been rupture of the uterus and fall of the fetus and membranes into the abdominal cavity, an appropriate operation for extraction should be performed.

6. No interference should be attempted as long as the fetus is living, unless eight months have passed since conception.

Alvarenga Prize.

The College of Physicians of Philadelphia will award the Alvarenga Prize, consisting of one year's income of the bequest of the late Señor Alvarenga and amounting to about two hundred dollars, to the author of the best memorial or unpublished work on any branch of medicine. The College reserves the right to reject all essays not considered worthy of the prize. Essays will be received until June 1, 1890, by the Secretary, Dr. Isaac Norris, Jr.

Paralysis from Compression of the Wrist.

The Berlin correspondent of the *Med. Press and Circular*, Jan. 29, 1890, speaks of a case of paralysis following arrest which was reported by Professor Eulenburg in the *Neurologische Centralblatt:*

In 1882 Bernhardt first drew attention to the fact that grasping of the arm as performed by police officers in the act of arrest, over the part where the radial nerve comes to the front was followed sometimes by paralysis of the hand. He reported some cases. Bernhardt, in consequence of his observations, made the suggestion that officers should grasp their charges immediately above the wrist. Professor Eulenburg's case shows that even grasping in this locality can be followed by evil consequences if the force used is sufficiently energetic. During a short walk of not more than three hundred yards the median nerve in this case suffered sufficient compression to produce paresis, implicating both sensory and motor functions.

Treatment of Angina Pectoris.

Dr. T. Frederick Pearse says, in the *Lancet*, Feb. 1, 1890, that of all the drugs that have been tried for this distressing complaint nothing comes up to the nitrite of amyl. In cases, however, where the attacks of pain occur very frequently, but are of a comparatively mild degree, the nitrite of sodium is more reliable and has a more lasting effect. Five-grain doses may be given without hesitation and repeated every four or six hours as may be necessary. Nitroglycerine, like nitrite of amyl, is more rapid in alleviating the symptoms, but similarly its influence is of shorter duration. Dr. Pearse thinks that the state of the patient's mind is relieved by combining small doses of morphia with the nitrite—at any rate, the combination has seemed to him a decided advantage. It has been his practice to keep a belladonna plaster over the left breast continuously for some weeks.

Treatment of Gonorrhœa in the Female.

The following formula is given in the *Journal de médecine de Paris*, Dec. 1, 1889:

℞ Creolini . . . . . f℥ss
Ext. hydrastis can. . . . . f℥ijss
Aquæ . . . . . f℥vij
M. Sig. A dessertspoonful should be added to one pint of water and used for an injection.

Antipyrin Incompatible with Naphthol.

M. Chabrol, of Paris, states that on mixing betanaphthol, antipyrin and bismuth salicylate he found that a paste resulted. Experiments demonstrated that the reaction occurred between the antipyrin and the napthol.

NEWS.

—Dr. H. Frey, formerly Professor of Histology in Zurich, is dead.

—A movement is on foot in San Francisco to establish a much needed ambulance service in that city.

—Dr. C. S. Ayres has been elected President of the Cincinnati Polyclinic Graduate School of Medicine.

—Sir William Withey Gull, physician-in-ordinary to the Prince of Wales, died in London, January 29.

—A survivor of the famous Shannon and Chesapeake fight died at Truro, N. S., on January 29, aged 106.

—A report has been received in Berlin that Dr. Karl Westphal has recently died in a private asylum at Constance.

—Dr. T. Gaillard Thomas has resigned the chair of Clinical Gynecology in the College of Physicians and Surgeons, New York.

—Perhaps the oldest woman in New York State died Jan. 26, at the age of 107 years and three months, at Warwick, Orange County.

—The epidemic of influenza is reported by 98 per cent. of the physicians reporting to the State Board of Health as still being prevalent in Michigan.

—During the week ending Jan. 25, there were 552 deaths in Philadelphia. Twenty-three of these were directly from the influenza and 238 from allied diseases.

—The Associated Charities of Denver, Col., have asked the County Commissioners for an appropriation of $10,000 towards establishing a free hospital in Denver, for the care of the impoverished sick.

—During the week ending Jan. 25, one hundred and twenty-seven deaths in London were attributed to "la grippe." The mortality from diseases of the respiratory organs is still abnormally large in London.

—Professor Otto Madelung, of Rostock, has been appointed to succeed the late Professor Volkmann. Professor Madelung has made a specialty of intestinal and rhinoplastic operations and has taught surgery both at Bonn and Rostock for several years.

—A Weekly Rest Congress was recently held in Paris, under the presidency of M. Léon Say, the object of which was to urge the general observation of one day of rest in the seven, which is regarded by the members of the congress as necessary for the preservation of the health of man as well as of beast.

—Senator Ingalls has introduced a bill into the Senate establishing a Board of Medical Examiners for the District of Columbia. The bill provides that the Board shall consist of ten physicians or surgeons, three dental surgeons, and, in addition, five homœopathic practitioners of medicine. The term of office is to be four years.

—There are said to be over 200 helpless lunatics in the jails of Virginia who are suffering for want of proper care. No efforts are being made by the authorities to remedy this state of affairs, with the exception that the Legislature is considering the feasibility of transforming the colored normal school buildings at Petersburg into an asylum.

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Clinical Lecture.

THE INFLUENZA.—INFLUENZA WITH SLOW INCUBATION, AS COMPLICATION OF NEPHRITIS.—INFLUENZA WITHOUT ELEVATION OF TEMPERATURE. — DIFFERENTIAL DIAGNOSIS OF INFLUENZA.— DANGEROUS COMPLICATIONS.[1]

BY J. M. ANDERS, M. D.

The Influenza, with Sudden Onset.

Gentlemen: I propose to-day to devote the hour to the consideration of a disease which is at present prevalent in so many and in such widely separated localities, and which is variously known as "la grippe," influenza and epidemic catarrh. I shall not, for want of time, go into a full historical sketch of it. Suffice it to state that our earliest authentic knowledge of it dates back to the beginning of the sixteenth century. It is true that it was mentioned by Hippocrates, but his description was lacking in precision. In the winter of 1847–8 there was a severe epidemic of influenza in this and other countries, and its mortality in London reached as high as two per cent.

Among the predisposing causes of the disease may be mentioned general poor health. I call this a predisposing cause. Perhaps it would be better to say that, although persons of all grades of health are attacked alike by it, the ones that are weak and delicate are the more seriously affected. In the same way it has been noticed that the aged and very young have it worse than the middle-aged. It is no respecter of persons, place nor seasons, and in this way differs from ordinary colds which generally occur most frequently in bad weather and among those who are exposed or poorly nourished. The exciting cause is supposed

[1] Delivered at the Philadelphia Hospital.

to be a micro-organism or germ, although it has not yet been isolated, notwithstanding the many efforts that have been put forth in various parts of the world to do so, with the hope that the disease might be thereby more successfully combatted.

Another interesting and practical question is, whether this affection is contagious or not. A scientific controversy is now in progress to determine this point. My own opinion is that it is but feebly contagious. On the other hand we have the following interesting circumstance that is vouched for by Drs. White and Guitéras of the University of Pennsylvania. These gentlemen state that a man who had the disease in London and who went immediately to Paris, there became speedily worse and died. His body was embalmed and sent to this country to his home where the disease was not then prevalent. When he was brought home the coffin was opened and the remains viewed by his family. Of the persons who saw the body several soon afterwards had the catarrh, though they had not been otherwise exposed to any visible source of contagion. A total of eighteen cases appeared. If the disease be due to a specific organism, the mucous membranes of the nose, lungs and throat seem to be the favorite localities for its growth and development, and it does not seem at all unreasonable to suppose that these germs, which must be more numerous here than in the air, are given off with the expired air, and give rise to disease in those coming in contact with influenza patients. The symptoms of influenza we shall study in the case of the man who has been brought before us. His attack began about ten days ago. He had a few hours of malaise and then a chill which was immediately followed by a fever, backache and pains in the various joints of his body and limbs. This is the common mode of onset when the disease comes on suddenly. There are some authors who state that it comes quickly and goes as quickly. The former statement may or may not be true; the latter has not been my experience. The temperature chart is irregular—a sudden ascent, but not so sudden a descent to normal, and in this latter regard it differs from the temperature in intermittent fever. In a few cases it reaches a very high point. Here it went on the first day as high as 103° F. On the next day it was down to 100°, and on the third day it descended to normal. The pulse at first was full and frequent, but, as is generally the case, when the fever began to defervesce the previously full pulse became weak and even thready. The skin, too, of the face and neck was red and dry until the sweating set in, and this was profuse and occurred several times during the day.

The urine is generally lessened and contains a large quantity of urates. It may be retained and, of course, the symptoms are then more serious. I have met one case of retention of urine in a child. He passed no water for twenty-four hours and it then flowed freely.

In this present case the catarrhal manifestations began in the nasal mucous membrane, though there was not much sneezing. But the main seat of the catarrhal affection here was in the bronchial tubes where it remained for several days. The physical signs were almost negative. The cough in these cases is apt to be out of all proportion to the physical signs and to assume a paroxysmal character which has often been taken for whooping cough. There are generally a few dry crepitant râles. If bronchitis is developed, there is no dulness; but sonorous and sibilant râles which, as the disease progresses, become coarser and bubbling. Where there is no true bronchitis developed we might call the condition a laryngo-bronchial irritation, and with this state of the bronchial mucous membrane we may have a gastro-intestinal irritation which is manifested by vomiting and a tendency to pass into catarrhal dysentery.

The nervous symptoms are generally dizziness, sleeplessness, a tendency to fainting, and sometimes hebitude. The pains in the back and limbs may be attributed to irritation of the nervous system. As a rule, the severer pain occurs near to, rather than directly in, the larger joints. It may also be situated in the muscles. It often occurs in the lower intercostal spaces and this is especially apt to come on in the later stages of the disease.

The treatment here, as in most cases, has been simple. In uncomplicated cases active treatment is not necessary. Many patients would do well, if they could only be prevailed on to go to bed and keep warm, and to eat lightly, if the stomach shows any sign of irritation, and to use for their sore throat some simple gargle, such as one composed of rhus glabrum, potassium chlorate and carbolic acid. This may be used diluted every few hours. The remedies that this man has been taking are antipyrin and quinine. This

combination serves to lower the temperature and support the system, they being the two main indications in this disease. When, as was the case with this patient, there are from the first severe bronchial symptoms, wine of ipecac should be exhibited in combination with ammonium chloride or the solution of the acetate of ammonium, to loosen the secretions. This man having entered upon convalescence is now taking a tonic composed of bark and sulphuric acid. If he were an anæmic, iron would be added to this treatment. For the gastric symptoms he took small doses of calomel and soda.

Influenza with Slow Incubation Occurring as a Complication of Chronic Nephritis.

A. D., 28 years old, had been in the medical wards for a considerable time on account of kidney disease. In the former case the period of incubation was short. Here there were several days of malaise and general indisposition preceding the time when the attack suddenly became visible. There was then a sudden increase in the backache, headache and pains in the joints. Later, as in the other case, the pains about the base of the chest were developed. On the second day the temperature went up to 104° F.; on the next day it descended to 101° F., and in six or seven days it came down to normal. The fact that this man had previously a chronic disease is interesting; because men so affected have la grippe more severely than those who were in previous good health. His local manifestations were chiefly confined to the head and chest. In ten days from its onset, if the present rate of improvement continues, he will be as well as usual.

The gastric symptoms which were rather troublesome in this man's case frequently usher in an attack, and they are especially apt to be severe in children. The nasal and bronchial manifestations may occur in the same case as the gastric symptoms in the adult, as in the case before us, and when they do they are apt to alternate with each other. It seems that the disease, like underground water, seeks an outlet for itself here or there, or where the constitution of the individual is weakest. In this way a dysentery or a catarrhal condition of the kidneys or a bronchitis may be set up in persons who have a weakness at either of these points.

This case has been treated very much like the one that has just gone out. The man took at first antipyrin, quinine and a cough mixture. Now he is taking a tonic in which we are careful to have some iron, as Bright's disease is peculiarly liable to cause anemia.

Influenza with Chronic Bronchitis without Elevation of Temperature.

This woman is forty years old, from Ireland, and is a domestic. About one week ago she suddenly began to be affected with a naso-bronchial catarrh, general soreness and cough. But her temperature did not go up. This peculiarity is sometimes seen in persons who are old or debilitated. She, too, has been treated with antipyrin and quinine for the fever and catarrh. The cough is already improving. She had before the attack a chronic bronchitis and now she has an acute bronchitis superadded. The physical signs have been those of ordinary bronchitis. There were sonorous and sibilant, followed by moist bubbling râles, and later in the attack there was a profuse mucopurulent expectoration. The cough has been nearly constant and there were, in addition, numerous paroxysms which were strikingly like those of whooping cough. Considering her pre-existing troubles, she is fortunate in having already advanced far towards convalescence.

Differential Diagnosis of Influenza.

The influenza, especially when the period of incubation is long, has been mistaken for typhoid fever. But in this latter disease we have a steadily ascending temperature with its constant diurnal variations, diarrhœa, enlarged spleen and the typhoid eruption on the eighth day; whereas in la grippe we have a sudden elevation, but quickly falling and markedly irregular temperature and absence of the other three symptoms. Endemic catarrh has not the constant depressing nervous symptoms nor peculiar pain of influenza, and, besides, you should always consider which disease would be most apt to be prevalent in the locality. In ordinary bronchitis you get usually a history of the patient's having been exposed to bad weather, or to alternations of temperature and the customary physical signs which I have already enumerated in this lecture, whereas in simple influenza the condition of the mucous membrane of the lungs may be called, in the majority of cases, at least, a

laryngo-bronchial irritation rather than the customary inflammation of the mucous membrane occurring in true bronchitis.

Dangerous Complications.

These conditions may be summed up in the expression, inflammatory states of the lungs. They are: First, catarrhal bronchitis in which there is dyspnœa, lividity of the face and extremities, and generally an increase of temperature. Here the main indication in the treatment is stimulation; but not with preparations of ammonium, except liquor ammonii acetatis, which is not a stimulating expectorant, but a diuretic. Ipecac may be used with the stimulant to assist in loosening the phlegm. Second, collapse of the lung, which is often described as congestive collapse. You may understand how a part of the lung may collapse when the bronchial tube leading to it becomes occluded and cuts off its supply of air. This may be further complicated by the occurrence of catarrhal pneumonia, a not uncommon event of serious import. Third, If lobar pneumonia occurs, it comes late, suddenly, and is ushered in by a chill, whereas catarrhal pneumonia is rather a concomitant condition, developing at any time, in the course of the attack, and has, as a rule, no initiatory chill. Fourth, An emphysema may sometimes occur and with it comes asthma. Its physical signs are most marked at the base of the lungs and behind as well as along the ventral borders.

The prognosis of simple influenza in the previously healthy is always good. It may be serious in children, old persons and those worn out with debilitating diseases. The highest mortality reached by any epidemic has been two per cent. The rate of mortality varies with the character of the epidemic and especially with the concomitant diseases. The death-rate from other diseases is increased during the prevalence of influenza, and the vitality of the common mass of humanity seems to be lowered.

Remedy for Intoxication.—Half a teaspoonful of chloride of ammonium in a goblet of water will almost immediately restore his faculties and powers of locomotion to a man who is helplessly intoxicated. A wineglassful of strong vinegar will have the same effect, and is frequently resorted to by drunken soldiers to enable them to return steadily to their barracks.

Communications.

TREPHINING, WITH REPORT OF CASES.[1]

BY J. E. PENDLETON, M. D.,
HARTFORD, KENTUCKY.

Is there any good in trephining? Recently when on my way home from the meeting of the Mississippi Valley Medical Association at Evansville, Indiana, a cultivated and intellectual member of the McDowell Medical Society asked me if I had seen any good from trephining.

The question was directed to my personal experience, and after a moment's reflection I answered that I had, but did not then have time to explain the reasons for my conviction. We all know of the doubt and arguments recorded in medical literature that have harassed the career of the trephine from the earliest times, and that many of the most eminent men of the profession have given the operation of "boring the skull," as they term it, their most unqualified condemnation.

Professor Stromeyer, speaking in regard to fractures of the internal table alone as late as the year 1849, says, "these separations remain generally undiscovered," which in his opinion is lucky for the patient, because he therefore escapes the danger of being trephined.

In the *Medical and Surgical History of the War of the Rebellion* are recorded twenty cases of this most rare form of skull fracture with but a single recovery. If Professor Stromeyer knew of a like fearful rate of mortality from this peculiar lesion, all can estimate his horror of an operation that promised so little. Hardly a single well authenticated case have I been able to find recorded in the annals of surgery where a satisfactory diagnosis of this injury was made in time for a primary operation. In a few of the recorded cases the nature of the trouble was first discovered when a disk of bone had been removed for the relief of compression supposed to be the result of hemorrhage or suppuration. In the great majority of cases, its first revelation was obtained at the autopsy.

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[1] Read at the Twenty-ninth semi-annual Meeting of the McDowell Medical Society, at Henderson, Ky., Nov. 11, 1889.

So far, then, as fractures of the internal table alone are concerned with the use of the trephine (much as we might disagree with the opinion of Dr. Stromeyer as to its applicability, especially when the injury has been recently sustained, until all have better methods of diagnosis than have yet been used) the rate or mortality must continue to be great.

Now that all have learned of the existence of certain micro-organisms whose introduction into wounds set up dangerous pathological processes, and have also learned the great value of cleanliness and the inestimable virtues of certain chemicals, as bactericides, we are armed for the successful invasion of precincts of the human body regarded by our predecessors with well nigh a sacred awe.

Is it any wonder that the surgeon whose experience with the trephine had been obtained in a hospital badly ventilated and reeking with deadly germs should have condemned its use?

Trephining in itself is not a dangerous operation. There has not been a record of cases in which all other factors of danger have been eliminated. This operation is always done for the relief of some injury or other pathological condition which either impairs the health or imperils the life of the patient.

Operations done for the relief of epilepsy are more nearly fair examples from which to calculate the mortality rate than any other class of cases that have been recorded. Even in these, if the epileptic seizures be due to old traumatisms of the skull with spiculæ of bone or exostoses impinging upon the brain or its membranes, they should be excluded.

At a clinic in Jefferson Medical College, of Philadelphia, I witnessed an operation of this kind done before the class for the relief of a confirmed epileptic by the late Professor Gross. This, together with three others of a similar kind upon which he had operated, are recorded in his great work on Surgery. Two of them proved fatal as did also the one done in the presence of the class. In the last case a spicula of bone was found penetrating the membranes, through which opening cerebro-spinal fluid escaped freely both during and after the operation. The pressure being thus removed, the vessels at the seat of softening gave evidence of producing a fatal apoplexy.

The rate of mortality for the last several years has probably been constantly reduced in nearly all the classes of cases for which trephining has been done. The percentage of deaths in operations for traumatic epilepsy given by Ashhurst in his *International Encyclopedia of Surgery*, published in 1884, is 10.69. For simple depressed fractures, exclusive of those attended with concomitant intra-cranial injuries, he puts down a mortality of 15.29 per cent.

It has not been my fortune to have been called to use the trephine for tumors or epilepsy. My experience with the use of this instrument has been for the most part confined to recent traumatic injuries of the head. In two of the cases I have treated exostosis of the inner table was found.

Leaving behind the large number of cases I treated during my service as surgeon in the Confederate army, and before and since the war, I shall only report the last few cases upon which I have operated.

Case 1. S. W. S., 28 years old, plasterer by trade, industrious, but inclined to go on an occasional spree, while returning home on horseback one night, after a day of indulgence, when near his house dismounted to log down a fence, and after crossing his horse over stooped behind him to put up the gap, when he received a kick on his forehead and lay on the ground unconscious until the next morning. He was found and carried home by his friends, and when I saw him it was supposed to have been 12 hours after the accident. He was still unconscious and breathing stertorously; his pulse was feeble and irregular. His left eyelids were swollen and his face and neck almost entirely covered with dried blood. An ugly gash extended across the left side of the forehead above the eyebrow, beneath and above which a depressed fracture could be easily detected. After cleansing the wound thoroughly with warm water and antiseptic washes, a flap was raised, disclosing a fracture of the frontal bone more than three inches in length, extending from above the external angular process across to the middle of the forehead. The upper edge of the broken area along beneath the frontal eminence was the most deeply depressed near its outer angle. A disk of bone was removed with the trephine near the line of fracture. About an ounce of partly clotted dark blood came out through the opening made by the instrument. With considerable difficulty the depressed bone was elevated and still more blood of the same character came out after the depressed bone was ele-

vated and considerable fresh hemorrhage from the ruptured anterior branch of the middle meningeal artery. A tampon of antiseptic gauze, however, soon arrested it.

Although no anæsthetic had been used he did not show signs of pain till after the depression of the bone and compression caused by the effused blood had been relieved. The flap was restored and the wound dressed antiseptically with drainage. He finally made a good recovery and was working at his trade eight months after the injury.

Case 2. Joseph B., 11 years old, was kicked on the left side of the forehead by a mule, was knocked down, and lay insensible on the ground, from whence he was carried home. On the way he partially aroused, vomited, and had two convulsions, and a third after he was laid on the bed at home. I saw him in consultation with Dr. J. S. Morton about four hours after the accident. He was then in a state of deep coma, totally unconscious, with a feeble, irregular pulse, and breathing with difficulty. Above the left eyebrow and extending on to the temple was a bruised and lacerated wound beneath which a fracture of the skull with depression was easily diagnosticated. His state of insensibility was so complete that we did not deem artificial anæsthesia necessary.

After perfectly cleansing the wound and the face, a flap was lifted exposing the seat of the fracture. The depth and extent of the depression was not so great as it appeared before exposing it to view. A disk of bone was cut out with the trephine one inch above and behind the external angular process, when a very considerable quantity of thick, dark blood poured out the opening, and still more came away when the depressed bone was lifted into place. The breathing and other symptoms soon began to improve. The wound was dressed, drainage effected, and treated with antiseptic care. He had for three days a temperature of 102½°, which gradually went down, and from that on his progress toward recovery was uninterrupted. He lives at Hartford, Kentucky, where he is going to school. He says he does not experience any inconvenience as an effect of the injury, except that he would like to get rid of the ugly scar made by the animal's shoe.

Case 3. Isaac M. B., 52 years old, farmer, while working on the road got into a dispute and was struck on the head by a "pick-axe," thrown some ten feet violently by his assailant. He was knocked down and remained for several minutes unconscious. When he had revived a little he began to vomit, became cold and almost pulseless. In this condition he was carried to his home on a batten a half-mile away by the road hands. I saw him with Drs. Sanders and Miller three hours later. The history given was that he was "at himself" and spoke to his family intelligently about the affair when first brought in and continued to talk for half an hour or more. He then began to grow stupid and to breathe, as they said, as though he was deeply under the influence of morphine. In this condition I found him when I reached the house. The pupil of his left eye was widely dilated and the right contracted. The lid of the left eye was swollen and ecchymosed. Calling or shaking did not get any response.

The stroke had been received on the left side of the head over the anterior superior quadrant of the parietal bone, and a depression of the bone could be felt through the scalp and the wound. Before he became unconscious and after he was brought home, he spoke of a feeling of numbness and finally of paralysis in his right arm. Being satisfied from these symptoms that intracranial hemorrhage had taken place and was probably still going on, we proceeded at once to lift a U-shaped flap and cut out a disk of bone, which allowed more than an ounce of exuded blood to escape that had been compressing the motor area of the left side. Rather a fierce hemorrhage was set up from the middle meningeal artery that had been divided by the cut of the instrument. The orifice of the bleeding vessel was successfully plugged with a bit of chromatized animal ligature pointed and pushed into its opening, and as it lay in a rather deep groove in the bone, it was not without considerable difficulty that I at last succeeded in raising the depressed portion of the bone which, though broken with a Y-shaped or stellate fracture (but not parted), was so firmly inarched that it obstinately resisted for some time all my efforts for its restoration. The flap was now returned, drainage and sutures put in and the wound carefully cleansed, both beneath and upon the scalp, with a 1-in-3000 solution of the bichloride of mercury, and over all a dressing of antiseptic gauze and iodoform.

For several days he suffered pain about the seat of the injury and around his left eye and ear. Partial paralysis of his right

arm and partial aphasia continued for about two months, but he eventually recovered with the total loss of the sight of his left eye.

I had a talk with him only a day or two since, and he says that he still has pain in the vicinity of the fracture, pain in his ear and around his eye on the same side as the injury. However, he is now engaged in getting saw-logs and camps out with his hands, says he can do a good day's work when the weather was cool, but could not stand the heat of last summer.

Case 4. Joseph B., 59 years old, farmer, was struck on the head with a heavy gun-barrel in the hands of an assailant. He fell to the ground and remained for a time unconscious, but finally arose without aid and walked 400 yards over a high hill to his home. Twelve hours after the injury I saw him with Drs. Wedding, Cox and Raine. He was still able to answer questions, but had at times been delirious throughout the day. On the right side of his head was a contused wound through which at one point was exuding blood and some cerebral substance. The left arm was paralyzed. The scalp being shaved and carefully cleansed with antiseptic wash, the skull was exposed, revealing a depressed comminuted fracture of the right parietal bone about four inches in length and two in breadth, one inch from and parallel with the sagittal suture. After removing the loose fragments and elevating the depressed bone, the ruptured middle meningeal artery, which had been bleeding more or less from the time the injury was inflicted, continued to furnish quite a free hemorrhage. The bleeding end of the artery was so situated that it could not be ligated, but was controlled with a tampon of iodoform gauze. The upper end of the middle third of the fissure of Rolando was probably just beneath the fragments that were removed, and the rupture of the membranes and laceration of brain substance a little in front of it.

The wound was now thoroughly disinfected with mercuric bichloride solution, drained, and the flap replaced. He slowly recovered and was present as a witness in the criminal prosecution of his assailant. There is still, however, partial paralysis of his left arm and a small sinus leading down to the fracture.

Case 5. Roberson, 36 years old, saw-mill owner, had been struck on the head by a heavy piece of lumber, used as joist, which slid endwise from a shed and knocked him insensible. He was carried on a batten two miles to his home, where he had been under treatment for two months by his physicians, when I was called. He was extremely emaciated and prostrated from his protracted suffering; could only get rest and sleep when under the influence of full doses of anodynes. The pupils were unequally dilated, that of the right eye being the larger. When awake his arms and legs were almost constantly in motion by a voluntary muscular contraction; the right arm and leg exhibiting less movement than the left. Temperature below normal in the mornings, with a rise to 100° in the evening, and going down with perspiration at night.

He would answer when called to loudly, but without intelligence, and seemed unable to control his speech, which was a mixed jargon of syllables and indistinct words. The seat of the injury did not show any signs of fracture or depression of the skull, or even any very distinct scar. But upon close examination the scalp seemed to be denser and bound tightly to the skull at that point. After shaving the scalp and thoroughly cleansing it he was anæsthetized with chloroform and a U-shaped flap lifted, exposing the calvarium. After careful inspection neither fracture nor depression could be found. A conical trephine was put down, and a disk of bone removed at the point where the scalp had appeared to have been injured. This happened to be one inch to the right of the sagittal suture and about the same distance in front of the fissure of Rolando. Upon removing the button of bone a small quantity of pus escaped through the opening, and the dura mater was roughened with inflammatory deposit. There was not any bulging of the membrane into the trephine hole, nor other evidence of deeper suppurative action observed. A small branch of the middle meningeal artery which did not bleed at first furnished a considerable hemorrhage when patient was allowed to come partly from under the influence of the chloroform, and had to be plugged with a bit of aseptic catgut.

The wound was now cleansed with a 1-2000 bichloride solution and some threads of chromatized catgut used for drainage, and the flap sutured in place.

Drs. J. W. Meadon and E. B. Pendleton assisted me in the operation, and Drs. Meadon and Wedding took charge of the

after treatment. Improvement did not take place immediately, but by the next day there was some change for the better. From this on gradual improvement continued until at the end of three months the patient was able to resume his vocation.

I had an opportunity to examine his head at the seat of the operation six months after the operation, and found the trephine hole closed with dense fibrous tissue. He said that he did not in any way suffer pain or inconvenience from it, and that he was able to bear as much labor as before he received the injury. He is now living at McHenry, in Ohio County, engaged in cutting lumber with his mill for the use of the mines.

The following case presented itself Nov. 8, after I had written a report of the cases I have read:

Case 6. Lena N., aged 13 years old, fell, striking her forehead against the sharp, projecting corner of a rock when five years old. The wound soon healed and nothing more was thought of the injury. She grew up and became more and more delicate, was sedate and not inclined to indulge in play with the other children; complained of headache, which from year to year became more constant. Within the last three years several physicians were consulted and prescribed for the cephalalgia without giving more than temporary relief. She also suffered from obstinate constipation of the bowels, which seemed to be as intractable as the pain in the head. For three weeks before I saw her she had been kept in bed and laid in a listless state of indifference from which she could not be aroused. There had not been an evacuation of the bowels for eight days, nor had she swallowed anything but liquid food for four or five weeks previous to my visit. On that day her respirations were nine to the minute, pulse 54, and temperature 97°. Pupils contracted equally, and eyes sensitive to light. No paralysis could be detected, though she had frequently complained of tingling and numbness in her extremities. The extreme emaciation she had reached, together with the motionless dorsal decubitus of the body, kept so long that the bed clothing had adapted itself to the attenuated form, all reminded one unpleasantly of the presence of a cadaver.

A white cicatrix on the right side of the forehead, situated on the frontal eminence within half an inch of the saggital suture, plainly marked the site of the injury she had received eight years before. Beneath the cicatrix could be felt an indentation in the bone. While able to talk she had located the pain in the forehead around the vicinity of the scar, but no one thought to refer the pain to the old traumatism, as it had almost been forgotten.

With the assistance of Drs. Williams and Glen chloroform was administered, and a button of bone, including the indentation, was cut out with the trephine, after shaving the scalp and thorough antiseptic cleansing. The inner edge of the trephine cut was in contact with the superior longitudinal sinus, and the thickened edge of the disk was cut from a continuation of a ridge that extended into, if not across the sinus. The sinus was not laid open, nor was there any bleeding scarcely from inside the skull, but I have not seen so much bleeding from the vessels of the diploë as we encountered in this case. It was finally arrested, however, by the application of very hot water. I remained at the house till the next morning and left her apparently doing well. She had taken some milk and medicine and retained it all, which she had not done before in three weeks.

This operation was done as a forlorn hope, as in her extreme condition of exhaustion and emaciation there was nothing to inspire more than the most distant expectation of success. Should she recover, I shall forever feel grateful to the powers that come to our relief when hope is well-nigh spent.

The following is a report of some cases in which the trephine might have been used with the expectation of favorable results, but was not:

Case 7. B. A. was stabbed in the forehead in a drinking bout and a part of the knife blade broken off in the skull. He was in good health when about 26 years old, and a noted bully. Neither at the time, nor for two days after the injury did he complain, but continued to ride horseback over the country. The morning of the third day he began to suffer with headache, and by the evening he was raving in delirium and soon perished from encephalitis. At the autopsy it was found that the blade had punctured the brain to the depth of half an inch and remained broken off in the bone.

Case 8. W. C., 32 years old, was kicked on the left side of the head by a vicious stallion he was keeping. Soon recovered from the shock, got up and led his horse some distance to a house by the road, put him

into the stable, went in the house and told the family circumstantially of how he received his injury. Complained of feeling badly and asked to be allowed to lie down. Soon after he got in bed he began to grow drowsy and to breathe heavily, and finally fell into coma and died within a few hours, evidently from compression produced by intra-cranial hemorrhage.

Case 9. G. B., aged 22, fell, striking his head on the ice, during the great sleet of two years ago. He was alone, some distance from home at the time, but succeeded in reaching there unassisted. He told his mother how he received his injury, complained of pain in his head and numbness in his arm. He went to bed and died of compression the following night.

Case 10. B. C., a child, male, about two years old, fell from a high door-step, head downward, striking upon a six-penny nail that protruded upward through a thin board that was lying on the ground. The nail punctured the scalp and the skull, entering the brain, and required considerable force for its extraction. The puncture was situated an inch or more from the sagittal suture at the junction of the anterior and middle third of the left parietal bone. The child cried a little at the time, but was soon pacified, played about the floor for half an hour or more, after which it fell asleep. When it awoke the right arm was found to be paralyzed. A physician was called in now and found the scalp puffed around the orifice. He passed a probe through the wound and let out three or four drachms of dark blood. The symptoms improved to recur again and again after relief in a similar way for three weeks. The operation of trephining was proposed and declined, and the child finally perished with encephalitis, coma and convulsions.

These four last cases reported are not all that I have seen within the time intended to be covered by this paper that might have been better by trephining, but I have selected them because the indications were most palpable.

Much as has been learned and published within the last two decades with regard to the functions of the cerebral centres, we are not yet in possession of sufficient knowledge to shield us from the danger of making mistakes in locating cerebral lesions. The very complex anatomical arrangement of the nervous centres and their conducting tracts, the facts that two or more areas may be intimately connected with the same function and that lesions of the same location in different individuals may not produce like definite results, conspire to hinder correct diagnosis. All have doubtless recently read of some brilliant successes in brain surgery said to have been achieved by superior knowledge of brain localization, skilful operating, and the use of the aseptic and antiseptic methods of modern surgery. Tumors and abscesses embedded deeply in the brain substance that would have inevitably have terminated life have been extirpated or evacuated and the patients restored to health. Cases of traumatic epilepsy, with and without any apparent lesion at the seat of the original traumatism, have been subjected to operations that not only removed broad areas of the calvaria, but also made extensive resections of the cortical and subcortical brain substance. In one instance, in a confirmed traumatic epileptic, one-half of the whole breadth of the ascending parietal convolution was excised, the apex of the wedge reaching into the corona radiata, with the effect of permanent relief from the seizures.

Perilous as these daring ventures in brain surgery may seem, there will be found many whose lives have been made so miserable by constantly recurring fits of epilepsy, and who have failed of relief in all other directions, who will gladly avail themselves of almost any operation to get rid of their malady.

In syphilitic, tubercular and malignant growths of the brain the use of the trephine is rarely warranted, nor should I feel justified in its use when the growth was unusually large, or if there were signs of diffuse infiltration around a cerebral tumor with ill-defined focal symptoms and rapidly advancing evidences of compression. In depressed fracture, in sub-cranial or sub-dural hemorrhage, or in traumatic abscess, if the focal symptoms are of a reliable character, there should be no hesitation about operating. It has not been my habit to urge patients to submit to perilous operations. My custom has been to state the facts as I understood them plainly and then leave the matter with the patient and his friends. Judging from my own observation and all I have gathered concerning the conditions of the skull and brain for which trephining may be done, I can only say that the propriety of operating depends most upon our ability to make a correct diagnosis.

THE CAUSES OF FREQUENT FAILURE OF RELIEF OF REFLEX SYMPTOMS AFTER TRACHELORRHAPHY.[1]

BY W. F. HYER, M. D.,

MERIDIAN, MISS.,

EX-PRESIDENT OF MISSISSIPPI STATE MEDICAL ASSOCIATION, TRI-STATE MEDICAL ASSOCIATION, MISSISSIPPI, TENNESSEE AND ARKANSAS, AND MISSISSIPPI STATE BOARD OF HEALTH.

For many years trachelorrhaphy has been an unfailing fountain from which has been quaffed the inspiration for the preparation of papers written for the edification of medical associations and journal subscribers. Its beneficent results have been so lauded, its favorable statistics so completely tabulated, and the reflex phenomena excited by lacerations of the cervix so fully described by competent and incompetent observers, that every incipient gynecologist, when a case is presented to him suffering from a pelvic trouble, begins his investigation with a lacerated cervix in his mind's eye; and happy is the observer if he discovers the lesion.

Many years ago the physician who gave "especial attention to diseases of women" entered into the investigation of a woman's peculiar ailments with "ulceration of the cervix," and the custom prevails to-day to a large extent; if he found the desired lesion, he was in a happy frame of mind, with his little stick of nitrate of silver and his vial of fuming nitric acid by his side. If no ulceration existed, however, he was at a loss how to proceed, his resources being exhausted. So to-day the aspiring gynecologist who has advanced one step beyond his predecessor looks for the lacerated cervix, and failing to find it, finds himself in the same fix. Thus the world wags on and history repeats itself.

That the operation of "trachelorrhaphy" is a success when properly performed, in cases where it is properly indicated, there can be no controversy; but that trachelorrhaphy as performed is frequently not crowned with success, is a fact too patent for argument.

How often do patients come to our office despairing of relief, with the statement that Dr. —— has operated on her for the restoration of the neck of the womb, promising her perfect and permanent relief, and she is no better than before he operated. She further informs us that the doctor has assured her in unmistakable terms that after the operation she would feel like a "young girl in her teens," and that all of her pains and aches would be but a reminiscence of the past. Yet the old familiar aches and pains were present and mournful reminders that life in this world is anything but a bed of roses, and that the fond anticipations she had nursed of ease and contentment in her remaining years were but idle dreams and vain hopes, and as a consequence she has lost faith in curative means and is disposed to look on members of the medical profession as veritable humbugs and impostors.

The doctor himself who operated, astonished and disgusted at the result, looks over the statistics again, refers to Emmett, Thomas and other authorities, and is at a loss to know why in this individual case—his particular case, from which he had expected to gather shekels and renown—everything goes awry, and success fails to crown his effort. What is the trouble? he asks. The laceration has been repaired, the integrity of the "os" restored, and nothing is apparent to account for the lingering and unameliorated symptoms. Are statistics a lie, and is gynecology a fraud? The answer is plain. Gynecology is a science, the mysteries of which are apparent only to the student who applies himself to it as such, and a man may be a good doctor and not a gynecologist.

The misfortune for the patient and the science is that there are many ambitious practitioners, ungrounded in anatomy, physiology or pathology, who, desiring to pose as gynecologists, attend a course at some post-graduate school, and after witnessing a few operations by a Wylie, Mundé, Emmett or Thomas on a lacerated cervix, exclaim, "Eureka!" and hustle down to a surgical instrument factory and lay in a supply of tools, and hie away home with lacerated cervix on the brain, to graze on the green and fertile pastures lying thereabout in the pose of a gynecologist.

In a short time he reads a paper before his local society on the operation for lacerated cervix and gives his experience as to its beneficent results; not, however, letting it be known that his only experience consists in witnessing the operation at the hands of experts.

Next we hear from him in the local journal to which he is an honored subscriber,

[1] Read by title before the Southern Surgical and Gynecological Association, Nashville, Tenn., Nov. 14, 1889.

his theme still "lacerated cervix" and the beneficent results of trachelorrhaphy in his hands. He dreams of lacerated cervices, and in his dreams sees crowds of women broken down in health, bringing to him their lacerated cervices for repair, through one door, and the same crowd departing through the other door with restored health and strength and beauty and cervices, their countenances beaming with gratitude after having laid an abundance of shekels at his feet. The only thought marring the beauty and pleasure of his dream, the thought "suppose he should cut too deep some time and sever his circular artery, which he has heard lies somewhere in that neighborhood, wouldn't there be trouble?"

In a year or two, when his failures are more notorious than his successes, he subsides and re-occupies the plane for which his education fits him—that of a one-horse doctor—abuses his science of gynecology, and proclaims it a humbug where his voice is heard. In the meantime we receive contributions through the usual channels of medical literature from the Wylies, Polks, Emmetts and others, proclaiming that the utility of trachelorraphy is from day to day more firmly established as performed by them. Why this discrepancy in results of observation? The answer is apparent. In the one case the operation is in the hands of an expert, in the other, of a pretender. The first trouble in the way of the non-expert is an inability to recognize the etiology of the reflex symptoms in a case where trachelorrhaphy alone is indicated.

Why is it, in other words, that the patient suffering alone from reflex symptoms, demanding the aid of trachelorraphy, can be relieved from all her reflex symptoms by the operation at the hands of one operator, the laceration being repaired, while at the hands of another operator, "non-expert," no relief is obtained, although the rent has been repaired? Let us consider what is causing the reflex symptoms.

I have two cases now in remembrance, who have extensive lacerations, discovered only while the patients were giving birth to children, and evidently of long duration, who declare they have never had a symptom of a reflex or direct character leading them to suspect any uterine trouble whatever.

Some years ago I met with a very clever practitioner of medicine, whose reputation extended far beyond his field of labor, and he asked the question: "Why is it that Sims goes along incising the lips of the cervix uteri to cure disease and relieve reflex symptoms, while Emmett, his most distinguished pupil, comes along and sews up the divided cervix for the cure of disease and reflex symptoms?"

When Sims recommends the section of the cervix it is made in normal tissue and the face of the incision heals over and is covered with a soft pliable cicatrix resembling the mucous membrane. On the other hand, when Emmett repairs a lacerated cervix it is in an abnormal and diseased condition. What are the facts in the case from which we draw our later deduction?

When a woman becomes pregnant there immediately ensues a physiological process, known as evolution. This process continues during the whole period of gestation. As a result of this process, cells are abundantly deposited in the substance of the uterus, both body and cervix, in order that the organs may have abundant material or body to prevent rupture and give muscular power to expel the product of gestation at the proper time. Not only does the product of evolution increase the muscular, but also the arterial, venous and nervous structures of the organ.

After gestation has ceased, and the contents of the organ are expelled, a physiological process called involution is established, by which all of the products of evolution are removed and absorbed into the general system, and the uterus and cervix, if this process proceeds in a normal manner, in a few weeks assume the same conditions that obtained previous to the pregnancy. But in a given case, during the process of labor, this cervix, enlarged and laden with the products of evolution, gives way and is ruptured. What is the result? Inflammatory action is established at the seat of the lesion, which by the ordinary physiological processes is healed, but this inflammatory process, so necessary for the healing of the broken surfaces of the wounded cervix, puts an immediate stop to the process of involution in the torn tissues and *fixes* the products of evolution within the area controlled by reparative inflammatory action and a hyperplastic condition of this part is permanently established. The ultimate filaments of the cervical nerves permeating this area are engaged in this pathological plasma which, after the reparative inflammation has subsided, undergoes a process of consolidation and condensation, and the pressure on these ulti-

mate nerve filaments is responsible for the many reflexes following cervical lacerations. Here we have a case as it presents itself to the embryo gynecologist. What are his ideas and what steps does he take? He recognizes the laceration and proposes to operate, assuring the patient of a cure, for has he not with his own eyes seen Hanks or Hunter cure exactly such cases? He places his patient under ether on the table and goes to work on the laceration. With his scissors he denudes the surface and brings the lacerated parts together. Perhaps it heals and perhaps not, but in either case the patient suffers as before. What is the matter? Simply not realizing the pathology of the case, he has failed to dissect out all the scar tissue; and the ultimate filaments of the uterine nerves are subject to the same pressure as before the operation; in fact, it really makes but little difference whether union of the denuded parts ensues after the operation or not, if all the hard scar tissue be thoroughly dissected out and removed.

We have here, then, one of the frequent causes of the failure to relieve reflex symptoms from trachelorrhaphy. A failure to remove every vestige of hardened tissue—fixed products of evolution.

I now desire to call your attention to another frequent cause of failure to relieve reflex symptoms from diseased pelvic organs by trachelorrhaphy, and that is *insufficient diagnosis*. Let us bear in mind that all the pelvic viscera are supplied with nerves from the hypogastric plexus and the pelvic plexus of the sympathetic nerve, and that through the medium of these nerves reflex symptoms are produced. Considering this fact we can readily understand that the same reflex phenomena may be, and frequently are produced by lesions of different organs. Thus while in a given case we find certain pathological phenomena accompanying a lacerated cervix, we at other times observe similar phenomena accompanying an hyperplastic condition of the broad ligaments, or a laceration of the perineum, or an organized effusion following a pelvic peritonitis. Why? Because the sensation, if I may use the term, carried to the lumbar and sacral ganglia is the same whether it be from the irritated ultimate filaments distributed to either of these localities. It is true that a lesion in each locality frequently carries with it some peculiar reflex symptom not common to the lesion of other localities, and to the acute observer an indication is given that a certain organ is suffering; but let the observer beware of attaching to such an indication undue prominence, and resting his mind on the assurance that the organ in which he has discovered a lesion is the only one diseased; for the majority of reflex symptoms are common to lesions of different organs of the pelvis.

The embryo gynecologist who has "laceration of the cervix" on the brain, when he finds no laceration present, is at once lost in a wilderness of doubt, failing to find the lesion he expected to treat, and is unprepared to investigate further, and falls back on the stick of caustic that he used to rely on before he became a gynecologist, and bewails the fact that his patient failed to have a laceration that he might cure, knowing that she could not have two diseases at once; like the quack of history who gave all his patients camphor to throw them into fits, because he was death on fits.

A remedy that would convert all pelvic diseases into lacerated cervices would be a Godsend to this kind of gynecologist; and, alas! for the credit of the profession and for suffering womanhood, their name is legion. Let it be noted that no gynecologist, I care not who he may be, is prepared to diagnosticate and treat a case until he has given *all* the pelvic viscera a systematic and complete investigation, and when disease is discovered in more than one organ or two or more diseased conditions are present in the same organ, his efforts must be directed to the treatment of *all* diseased conditions.

We are aware that a lacerated and hyperplastic cervix frequently acts as an exciting cause to establish lesions in other organs or other lesions in the same organ and of the other fact, that it is generally supposed by the class of gynecologists to whom we have had cause to allude heretofore, that when the primary lesion is cured its resultant lesion will be restored to its normal condition without further treatment. Thus, for instance, in case of a lacerated cervix we frequently find endometritis or ovarian irritation and enlargement probably primarily caused by the lacerated cervix, and it is expected the cause being removed the effect will cease. While this axiom is true when applied to functional disturbances alone, it does not hold good in those cases when a lesion has been produced and change in structure has taken place. These secondary lesions must be treated as if they were primary in their character.

Not long ago a patient came under my observation, an invalid of seven years' standing, since the birth of her last child in fact, weighing 90 lbs., unable to walk any distance without great pain. All her symptoms pointed to some lesion of the pelvic organs. Upon examination the first thing presenting itself to the observation was the expected lacerated cervix, but upon further investigation the ovaries were found enlarged and tender, the right broad ligament excessively tender, thickened and shortened and evident remains of a peritoneal inflammation. The lacerated cervix was in sight; the other lesions had to be sought for with "tacitus eruditus." My impression was that I had a case for trachelorraphy after the other lesions were remedied. A course of appropriate treatment for six weeks regulated the patient's bowels, restored her menstruation, which had been absent seven years, restored her ovaries to a normal condition, produced absorption of hyperplastic material in the broad ligaments, removed all traces of remains of peritonitis, restored her appetite, increased her weight 34 lbs., enabled her to walk any distance without pain, and restored her to perfect health; and no operation on the cervix was required.

This was one of the many cases in existence which, falling into the hands of the average gynecologist of the day, if reported would have added another to the statistical figures going to prove that trachelorraphy frequently fails to cure reflex symptoms caused by a lacerated cervix.

When diagnosis is thorough, by a competent observer, and all other causes of reflex action justly excluded, being confined strictly to a lacerated cervix, trachelorraphy properly performed is a magnificent success.

PULMONARY AUSCULTATION DON'TS.

BY THOMAS J. MAYS, M. D.,
PHILADELPHIA.

Don't auscultate in a cold room.

Don't auscultate over the clothing.

Don't auscultate a chest before percussing it.

Don't stoop while listening to a chest.

Don't practice immediate auscultation, but select a good stethoscope and familiarize yourself with its peculiarities.

Don't forget that the hair on the chest give rise to crackling sounds under the stethoscope.

Don't forget that your own beard or hair may do the same in any mode of auscultation.

Don't suppose that a double stethoscope is better than a single one because it enables you to listen with both ears.

Don't forget that you can hear best with a double stethoscope when it is held in a straight line.

Don't fail to take into account that a metallic stethoscope imparts a metallic tone to all chest sounds.

Don't buy a stethoscope in which the stem does not go through the ear piece entirely; for the stem is the principal conductor of sound, and thus insures complete continuity of material from the chest walls to the ear.

Don't lean hard on the stethoscope.

Don't allow clothing or your fingers to rub on the stethoscope while you listen.

Don't auscultate with any silk material between the patient's skin and your ear.

Don't ever omit to auscultate the apices and bases thoroughly.

Don't neglect asking your patient to cough when you are in doubt as to whether a râle is located in the alveoli or bronchi: if in the latter it will be dislodged.

Don't fail to realize that râles in one interscapular region are sometimes reflected into the opposite healthy lung through the medium of the large bronchial tubes; and that a large râle or ronchus in one of the main bronchial tubes may be transmitted over the whole or a greater part of the chest.

Don't set too high a value on a single physical sign; always endeavor to find corroborative ones.

Don't fall into the common error of believing that the crepitant râle never disappears under examination. This takes place when freshly developed crepitation is not too profuse and is subjected to repeated forced inspirations.

Don't regard a slight click at the end of inspiration, or at the beginning of expiration in an apex, as a trivial sign.

Don't forget that, as a rule, the crepitant râles at the base are more moist and crackling than at the apex, and that the latter are more resistant to treatment than the former.

Don't think, if you find a wavy or jerking respiration, that it is always a danger signal.

Don't place too much reliance on vocal resonance or bronchophony.

Don't fail, in listening for prolonged expiration, to ask your patient to breathe through his mouth. This will prevent those sounds which are produced in the nares from being transmitted into the lungs.

Don't say blowing expiration for prolonged expiration. In auscultation parlance blowing applies to inspiration.

Don't overlook the fact that creaking and crumpling râles in an apex may indicate an old dry cavity.

Don't accept the common teaching of some text-books that the pitch of expiration in a cavity is always lower than that of inspiration.

Don't omit to remember that in a good-sized cavity in the left lung the heart sounds occasionally produce a metallic reverberation.

Don't conclude that owing to the absence of well-recognized signs of disease in the chest, there exists no phthisis, when wasting, cough and fever persist.

Don't fail to record the physical signs and symptoms of every case you examine.

New York Correspondence.

New York Academy of Medicine.—Antisepsis in Typhoid Fever.—Solid Food in Typhoid.—Febricula of Typhoid.—Modern Antipyretics.—The Prevailing Epidemic.—Relation of Patient's Age to Influenza.—Complications of Influenza.—Bronchitis and Pneumonia in Influenza.—Execution by Electricity.

At the last general meeting of the New York Academy of Medicine, Professor Wm. H. Thomson, of the University, read a paper on the treatment of typhoid fever, and the feature of the management on which he laid the greatest stress was intestinal antisepsis. This he believes is most successfully carried out by the administration every three hours (and in some cases every two hours) of ten grains of saccharated pepsin and ten grains of subcarbonate of bismuth; in addition to which he often gives ten minims of dilute muriatic acid at the same intervals. As one result of this treatment he claims a great diminution of tympanitis, and the prompt checking of diarrhœa; and, as a rule, he never resorts to the use of opiates.

In the discussion which followed the paper, one measure was advocated by Professor George L. Peabody, of the College of Physicians and Surgeons, which, a few years ago, would have been regarded as rank heresy and one which would be almost certain to be followed by untold mischief. This was the use of solid food at the end of the third week or during the fourth week in the case of patients who are hungry and yet who still have more or less fever. In such cases he allows a small portion of tender steak or chop very finely subdivided, and, in addition (though at a different hour) the half or the whole of an egg; and he stated that he had never seen any evil result from this practice, while in many instances it has been followed by great benefit in the increased strength of the patient. In his opinion food, such as that referred to, is really digested before it gets well into the intestines in the case of those who, during some part of the twenty-four hours, are free from fever. As to the matter of relapses, he said that he was inclined to believe them to be due to a reinfection of the system, and that far more mischief was apt to result from allowing the patient to get up from bed too early than from giving him properly prepared food of a suitable character.

Dr. J. West Roosevelt expressed great gratification at having the views of Dr. Peabody, and stated that for some time past he had been tentatively pursuing the same plan, although with more or less fear and trembling on account of the strong feeling that had hitherto prevailed against the use of solid food in typhoid.

Professor E. G. Janeway spoke of the *febricula* of typhoid fever, which, he said, was not generally recognized. Where an outbreak of typhoid occurred in an institution he had sometimes found that while a larger number of the inmates are attacked with all the characteristic symptoms of the disease, in a considerable proportion of these the affection ran a very brief and mild course; which in his opinion went to show the capacity in certain individuals to throw off the disease, even after the usual phenomena accompanying had made their appearance. There was always danger, he said, of the attending physicians in such an attack regarding such cases as having been abated by the treatment employed, while in reality the same results would have been noted if no treatment whatever had been resorted to.

It was noticeable that Dr. Janeway expressed, in strong terms, his continued confidence in the use of the newer antipy-

retics such as antipyrine, which, if used with proper caution, he claimed were not attended with any bad results, and though not possessing any curative power in the disease, secured the greatest possible comfort to the patient with the least possible disturbance. If the heart showed signs of weakness he thought it well to give with them one of the cardiac stimulants, such as digitalis, caffeine, the ethers, or camphor. He gave a note of warning against the use of strophanthus in typhoid, for the reason that he has of late found this agent to produce diarrhœa in a number of instances. On the whole, he considers camphor one of the best remedies that we can use in this disease, as it not only strengthens the heart, but is an excellent antiseptic. It should be stated before leaving this subject that while in the vast majority of instances Dr. Janeway prefers medicinal antipyretics, he has found that in certain exceptional instances they prove inefficient, and in these he resorts to the external application of cold in the form of baths.

At the January meeting of the Section on Theory and Practice of the Academy of Medicine there was a discussion on the prevailing epidemic of influenza, in which more points worthy of note were brought out. Dr. C. L. Dana, the well-known neurologist, said that, according to the published reports, the affection commenced in St. Petersburg about the middle of November, and in New York about the middle of December, and that, while the whole course of the disease showed conclusively that it must be due to a specific germ, it was manifestly impossible (reasoning from our knowledge of other infectious germs) for such a contagion to travel this long distance in the short space of one month. We are therefore forced to the conclusion that the germ was already in this country, and that the microbe of epidemic influenza is not borne by the wind, or carried by individuals, like the cholera germ, but is distributed throughout the world. It had been claimed in Vienna, he understood, that this microbe had been found; but, in the experiments undertaken, it had failed to reproduce the disease, and he did not believe, therefore, that this important discovery had yet been made. In addition to the action of the specific germ, there seemed to be concerned in the production of the disease some epidemic influence, whether telluric, electric, or what not; although the speculations on this point had not as yet proved very fruitful. Dr. Dana then made some remarks on the nervous manifestations of the present epidemic as they had been noted in his own experience, and in the course of them stated that its most characteristic nervous phenomenon was the prostration so commonly met with. This, as in the case of other zymotic affections, he was inclined to believe was due to the direct effect of the poison of the disease upon the heart.

Dr. W. P. Northrup spoke particularly in regard to the ages of the patients attacked. In the New York Foundling Asylum, where there are over 700 inmates, he said that not a single diagnosis of influenza was made among the infants under two years of age. Among the children between the ages of two and five something like 15 or 20 per cent. were attacked, and all the children rapidly and completely recovered. All the severe cases (with pneumonia, etc.) were among the adults in the institution who were between the ages of eighteen and twenty-five; and of the total population of the house between two and twenty-five years old, about 80 per cent. had the disease. Out of fifty-two old ladies in a home where Dr. Northrup attends only two were attacked, while among fourteen younger women who are attendants in the institution six cases occurred. One curious feature of the influenza at the Foundling Asylum was that one ward entirely escaped the disease, although it was not in any way isolated and there were numerous cases in the wards adjoining it. The pregnant women awaiting confinement in the Maternity also escaped. Dr. Northrup has met with two cases in which there was a well-marked enythematous eruption symmetrical on the two sides of the body, one in hospital and the other in private practice. In one of these the temperature rose to 103°, there were green vomiting, angina, and intense itching and burning, and the whole attack closely resembled scarlet fever.

The eye and ear troubles attending and following attacks of influenza were described by the specialists, Dr. T. R. Pooley and O. D. Pomeroy, and the former stated that, during an attack in his own person, he took great interest in studying the eye symptoms. Disease of the ear appears to result much more frequently than that of the eye, and is usually of the character of purulent otitis, which is often accompanied by perforation of the ear-drum, and is due to the spreading of an inflammatory process from the throat

through the Eustachian tube to the middle ear.

By request, Professor Francis Delafield, who has just been elected chairman of the Section, gave his experience in regard to the bronchitis and pneumonia met with in connection with the epidemic. Like every one else, he said, he had been struck with the frequency with which these two diseases have occurred. In regard to the former two things had especially attracted attention. The first was the very satisfactory way in which the apparently very bad cases got well. Often there was great difficulty of breathing, with considerable rise of temperature, and expectoration of blood as well as mucus; yet he had been surprised to see how well such patients had done, and how quickly improvement set in. The second point was the number of individuals who, while they had a general bronchitis as far as the large tubes were concerned and localized bronchitis involving the smaller tubes, yet remained free from any implication of the lung tissue.

As to pneumonia, he thought every one must have been impressed with the frequency with which this disease was accompanied by bronchitis. In these cases of pneumonia he said there was a considerable difference, and that he had observed altogether four classes. In the first the cases were very mild. The temperature did not run high and there was very little dulness on percussion. There were some subcrepitant râles over a portion of the lung; but they cleared up within a few days.

In the second class of cases the patients did not seem to be very sick, and did not have a very high temperature, but they had considerable bronchitis and perfectly well-marked consolidation of one lobe which lasted for a week or two.

The third class was composed of those who had fully developed consolidation of the lung which went on for quite a long time. The temperature rose perhaps to 104°, and did not go down. After ten, or even twenty days it would still be found that the consolidation had not cleared up. In many instances, however, even after this very long period, the lung did clear up, the temperature went down, and the patient got well.

The fourth class was made up of the very bad cases. In most of these, together with the pneumonia, there were evidences of a great deal of bronchitis. The action of the heart was poor, and stasis of blood in the veins resulted. When this condition had been established the heart's action was very rapid and feeble, and expectoration became suppressed. Such patients seemed to do badly, no matter what course of treatment was pursued. Some seemed to be relieved for a day or two, and then the grave symptoms all came back again. In a smaller number death occurred as in ordinary lobar pneumonia.

The apparatus which has been placed in the three New York State prisons at Sing Sing, Auburn and Dannemora, for the execution of criminals by electricity, has all now been satisfactorily tested by a committee of experts, consisting of Dr. Carlos McDonald, Chairman of the State Commission in Lunancy, Dr. A. D. Rockwell, Professor of Electro-therapeutics in the New York Post-Graduate Medical School and Hospital, and Professor L. H. Landry, of the School of Mines, Columbia College. The last test was made at Dannemora prison in the latter part of January, when a powerful bull was instantaneously killed, without a struggle, by a charge of only 900 volts, while in the electrical executions it is proposed to employ a voltage of from 1,500 to 2,000.

PERISCOPE.

Etiology of Influenza.

The *Wiener medizinische Blätter* of January 23, publishes a "preliminary communication" on the etiology of influenza, by Dr. Maximilian Jolles, of Vienna. After protesting against the undesirable publicity which his investigations, which are still incomplete, have obtained in the political press, he goes on to say that, while making bacteriological examinations of the sputa of patients suffering from the prevailing epidemic, he was repeatedly struck by the fact that in the cover-glass specimens there were exceedingly numerous "capsule cocci," closely resembling Friedländer's bacilli of pneumonia. On December 27 he received from Dr. Hanc, of Vienna, the urine of a patient for examination, the analysis of which gave the following results: Alkaline urine of diminished specific gravity (1.017); chlorides diminished (3.834 grammes in a litre); small quantity of albumin and pus; triple phosphates; urate of ammonia; numerous leucocytes; mucous threads; pros-

tatic corpuscles; numerous basement epithelial scales from the bladder, the neck of the bladder, the posterior and former parts of the urethra. These conditions seemed to prove that the case was one of acute purulent cystitis. Dr. Hane, however, asserted that there was no symptom pointing to a local affection of the bladder except high fever, which had come on suddenly, and a large amount of pus in the urine. On the second day Dr. Jolles received the urine of the same patient, in three portions; examination of it gave the same results, but as there was a family history of tuberculosis, Dr. Jolles made "cover-glass specimens" of the sediment of the urine, which he stained according to the method of Gabbet-Ernst. There were no tubercle bacilli, but there were capsuled cocci, which were quite analogous to those detected in the sputa. The same conditions were found in cover-glass specimens which had been stained with the usual aqueous aniline colors. Since then cover-glass preparations were made of the sediment of urine in all cases of influenza, and the capsule cocci were found in the vast majority of them, though not in all. These observations led Dr. Jolles to suppose that the micro-organisms discovered probably stood in an etiological relation to influenza, especially as capsule cocci have not before been detected in the urine. He made plate cultures of several specimens of sputum and urine, and as early as the fourth day he found colonies closely resembling those described by Friedländer. They appeared as round, sharply limited, yellow, granular discs; over the surface they had the appearance of semi-globular buttons resembling porcelain. Control cultures showed the characteristic nail form, but on a comparison with Friedländer's cocci cultures, the "knob" of the nail appeared to be less glistening and more granular. The behavior of these micro-organisms to aniline colors was the same as that of Friedländer's bacillus. By means of aqueous aniline colors Dr. Jolles obtained from the pure cultures short and thick little rods (bacilli) with round ends, which lay in couples beside each other, and touched each other with their narrow ends (without capsules). When treated after the method of Gram, the micro-organisms became discolored. In making a bacteriological examination of the Vienna Hochquell water (aqueduct water which supplies Vienna, and comes from the mountains) on December 26, Dr. Jolles found numerous saprophytic bacteria (228 in one cubic centimetre) which in part liquefied gelatine, and in part failed to do so, and also numerous similar nail colonies which, observed with the microscope, proved to be diplococci, which were surrounded by a bright halo. The time has been too short to allow of satisfactory experiments on animals. A rabbit, in which a pure culture of one of the above-mentioned sputa was injected subcutaneously, remained quite well, and a second died of septicæmia, on the fifth day. It should, however, be borne in mind that these animals are refractory to Friedländer's bacillus.—*British Med. Journal*, Feb. 1, 1890.

Menthol in Affections of the Throat.

Mr. W. Frazer, in the *Med. Press and Circular*, Jan. 29, 1890, says: The suggestive paper of J. Lennox Browne, F. R. C. S., on the practical application of menthol, has reminded me that I ought to have called attention to some results of investigations made respecting its action in the course of last year. The first supply of menthol was brought to me direct from China, and the gentleman who obtained it for me said it was a well understood popular application in all cases of face-ache and brow ague, and sold in China by a class of hereditary traders, who, father and son, for many generations trafficked exclusively in menthol as a *specialité*. Since that time it has been extensively introduced into this country, and become a well-known article in chemists' shops.

I was so impressed with a conviction of its decided local anæsthetic powers that in the course of last summer I got Mr. W. Allen, of Henry Street, to prepare for me at his pharmaceutical establishment, compressed pellets containing definite quantities of menthol combined with certain proportions of cocaine, and presented this combination with considerable benefit in several cases of relaxed sore throat and pharyngo-nasal catarrh. I have no experience in its use in acute rhinitis, and so far as I have tried it in the prevalent catarrhal symptoms of epidemic influenza, now so widespread in this city, it has not proved of much advantage, still I am convinced that menthol alone or in combination with cocaine will be found a valuable aid in treating relaxed conditions of the throat and uvula. The use of its vapor is a suggestion

worthy full trial. There is always a liability to expect too much from a novel remedy, and when it does not answer all our expectations to undervalue it. I could not rely on menthol as a disinfectant in influenza, for I still want satisfactory proof that epidemic influenza is due to any contagious action, like scarlatina and ordinary exanthems, and can be in any degree controlled by any known deodorizer or disinfecting agent.

Recovery after Symptoms of Acute Obstruction without Operation.

Spontaneous cure in acute obstruction of the intestine is extremely rare, and the following case, communicated by Dr. Behrens to the *Deutsche Medicinische Zeitung*, is therefore of interest. A woman, sixty-one years of age, suffering for about eight years from diabetes mellitus in a mild degree, carried some heavy domestic utensil from one room to another, and in placing it on the floor stooped quickly, when she immediately felt a stabbing pain in the right hypochondrium, which compelled her to lie down. During the next night she suffered from malaise, with inclination to vomit, and the bowels refused to act. The patient felt very ill, and cathartics as well as enemata with castor-oil and honey were unsuccessfully employed. The second night violent vomiting occurred, with continual pain in the epigastrium, and calomel with opium were administered, but likewise without giving relief. The vomit had a fecal odor. Dr. Behrens wished to operate without further delay, but the patient refused. About five hours afterwards he was recalled, when he found that the second powder of calomel with opium had induced a thin motion of a very bad odor, and that the patient felt considerably better. Vomiting and pain entirely ceased with the first motion, and the woman gradually recovered. —*Lancet*, Jan. 18, 1890.

Sedative and Expectorant Mixture.

Dr. J. B. Johnson, of Washington, D. C., has found in his experience that no class of medicines is so suitable for the treatment of the inflammatory affections of the mucous membrane of the air passages, as alkalies. They not only relieve inflammatory action of the mucous membrane, but render its secretions more liquid, and, therefore, more easily expectorated. He always relies for success in the treatment of inflammation of the air passages upon alkalies, whether the case be one of pneumonia, acute bronchitis, or influenza.

The following prescription is the combination most frequently used :

℞ Ammonii chloridi
Potassii iodidi
Potassii chloratis . . . . . aa ʒj.
Tinct. digitalis . . . . . fʒij.
Tinct. scillæ . . . . . fʒiij.
Syrupi simplicis . . . . . fʒij.
Aquæ destillatæ . . . . . fʒiv.

M. Sig. Shake well. Dose, a tablespoonful every two hours.

Should the cough be very troublesome and the inflammation not very great, two or three drops of the fluid extract of opium may be added to each dose.—*Southern Clinic*, Feb., 1890.

Syrup for Certain Cutaneous Maladies.

Augagneur, the well-known dermatologist, publishes the following remedy, which succeeds admirably, he says, in prurigo and dry eczema :

℞ Carbolic acid, ʒj—ʒij :
Glycerine, q. s. to dissolve
Syrup of orange, fʒxij ;

M. Sig. A tablespoonful morning and evening.

—*Medical Press and Circular*, Jan. 29, 1890.

Cooking.

From experiments made by Jensen in the laboratory of the University of Tübingen, it appears that raw meat is much sooner digested than cooked meat. Cooking, as far as animal food is concerned, has the effect of making it more pleasing to the taste, but is unnecessary ; whereas, with certain vegetables, especially those composed principally of starch, as grain and potatoes, it is required to fit them for use. The proper preparation of food is a question that has not received the attention it demands. A badly cooked meal is more apt to disorganize the system than to prove nutritious and beneficial. The general teaching of cooking in our schools, both public and private, to girls would undoubtedly result in much improvement in this regard.—*Science*, Feb. 7, 1890.

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CHARLES W. DULLES, M.D.,
EDITOR AND PUBLISHER.

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When it is desired to call our attention to something in a newspaper, mark the passage boldly with a colored pencil, and write on the wrapper "Marked copy." Unless this is done, newspapers are not looked at.
The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

THE CARE OF EPILEPTICS.

There is no subject in the round of medical practice more deserving of deep and careful thought than the proper care of persons afflicted with epilepsy. These persons are among the most unfortunate that come under the notice of medical men; and their condition is so nearly hopeless, in the usual acceptation of the term, that it is hard to understand how so little has been done on a large scale to relieve their misfortunes. It is estimated that there are over one hundred thousand persons suffering with epilepsy in the United States; and we believe there is no public institution in the country devoted solely to the care of epileptics, except a small one in Massachusetts. In Germany there is an institution which now enjoys a world-wide reputation, on account of the modesty of its origin, the extent to which it has grown, and the great good which it has accomplished. This is the Bethel Epileptic Colony, at Bielefeld, near Hanover, where there are now more than two thousand inhabitants, including patients and their caretakers. In the winter of 1886–1887, Dr. Frederick Peterson, of New York, visited this interesting colony, and since then he has repeatedly called attention to the beneficent work which it has done, in the hope that its example might be followed in our own land, where so much time, labor and money are devoted to the amelioration of the lot of different classes of unfortunates.

In a paper read before the Section of Public Health of the New York Academy of Medicine, Dec. 6, 1889, and published in the *Journal of Nervous and Mental Diseases*, December, 1889, Dr. Peterson gives an admirable account of the Bethel Colony and the methods of medicinal and hygienic treatment of epilepsy in use there, as well as of the general management of the institution. This paper is so full of instruction and of suggestion that we take pleasure in laying before the readers of the REPORTER some of its statements.

The founder of the colony at Bielefeld was a Lutheran clergyman, Pastor Bodelschwing, who about thirty years ago purchased a farm and began his work with four epileptics under his care. The institution gradually expanded into the present colony. In the twenty years from 1867 to 1887 more than two thousand epileptics had been treated there; and of these one hundred and fifty-six had been cured and four hundred and fifty were improved, while all were placed in circumstances most favorable to make their condition tolerable or even relatively comfortable. The colony is now a village of fifty-five houses, scattered over three hundred and twenty acres of woodland and meadow. Manual training is combined with educational and religious facilities in the colony, and to these are added the most careful and skilful medical treatment, together with a great variety of pleasing

amusements. In managing the patients great attention is paid to securing proper bodily and mental exercise, and carefully regulated diet, with suitable hygienic and medicinal treatment. In regard to the latter, it may be noted, in passing, that the experience of the colony has led to the conviction that no drug or combination of drugs gives such good results as the administration of pure bromide of potassium in water—about twenty-five grains a day. If the seizures diminish in frequency, the same doses are given; if not, they are increased to four daily in the second week, five in the third week, and so on until eight such doses are taken daily if necessary. If eight prove injurious mentally or cause severe eruptions, particularly on the legs, the dose is again gradually diminished. In many cases minimal doses only are borne and are persisted in for indefinite lengths of time. The above dosage is for patients over sixteen years of age. From ten to sixteen years, three doses are given daily at first and never more than five or six. Under ten years two such doses are given daily and they are increased to four. Very young children are given still less.

Special pains are taken to procure a thoroughly pure drug, as the bromide generally sold contains impurities, such as chlorate of potash and other foreign substances; often to the extent of six per cent. An especially pure drug is prepared for the colony, containing not above 0.5 to 0.7 per cent. of foreign matter. Even after the cessation of attacks the remedy is persisted in with gradually lessening doses, for as long as eight to nine months.

Dr. Peterson's paper contains so forcible a presentation of the great good which is being accomplished by the Bethel Colony that we can heartily commend it to the attention of the readers of the REPORTER; and we join in his hope that some public sentiment may be aroused as to the necessities of this neglected class of defectives, and that some religious sisterhood, some private philanthropist, or some public official may be incited to provide for the early establishment in this or some other State of an epileptic colony, which shall become a home for the homeless, a place of refuge from many miseries, an educational institute for those who are forbidden the public schools, an industrial college for those to whom the ordinary avenues of trade are closed, a hospital where cure or palliation shall be possible, and where the highest scientific minds may be enabled to discover sometime a specific against one of the most woful of human ills.

CREMATION.

The readers of the REPORTER have now had an opportunity to learn the views of a very large number of the members of the medical profession in the United States on the subject of the proper mode of disposing of the bodies of the dead, and can see how strongly the opinion tends to approve of cremation instead of inhumation. The reasons given for preferring cremation to burial have been, for the most part, founded upon the general belief that burial of the dead near human habitations, and especially near the sources or conduits of water-supply, cannot be regarded as without prejudicial influence upon the public health. It will be remembered that some medical men, whose position as scientific investigators make their views of great weight, plainly repudiate the idea that disease is communicated from buried corpses to living human beings by means of emanations leaking into streams or wells near burying grounds; and this opinion is held by the REPORTER. None the less does it appear that the proximity of burial grounds to water sources or water conduits is undesirable, and there is force in the general objection to a mode of disposing of the dead which often involves this very condition.

The general preference for cremation apparent in the interviews published in the REPORTER is further supported by what

seems to be a growing feeling against the details of burial and its subsequent processes of decay. Physicians, as a rule, are not disposed to excesses of sentiment, and they regard with a certain amount of indifference the usual steps of development and disintegration which the course of nature includes. But physicians are not unmoved by the appeal made to their feelings, when it is proposed to substitute for the seen and unseen repulsive features of ordinary burial and slow decomposition, the rapid and unobjectionable reduction of the body to its original elements; and, for the almost certainty of neglected graves, a simple and easy mode of securing respectful care for all that is tangible and visible of those who have left the world.

So far, it is plain from what we have ascertained for our readers that the opinion of the medical profession in this country is strongly in favor of cremation as a substitute for burial of the dead, and it appears also that this opinion is growing more widespread as the subject is being more thoroughly discussed.

THE GRIPPE AND ITS NAME.

Considering that the present epidemic has, as yet, been by no means satisfactorily classified, it is rather amusing to glance over the remarkable names which it has been given. Coming originally from St. Petersburg, it started out, on its tour of the world, as "the Russian Influenza" or "Russian Catarrh." Its sudden onset caused the profession in France to designate it as "*la grippe*," and "*fièvre catarrhale épidémique*"; the German journals call it "*Grippe*," "*Blitzkatarrh*" or *Die Russische Krankheit.*" The medical journals of Italy have no uniform name for it, but speak of it principally as the influenza or "*catarro Russo.*" The Spanish call it "*influencia Rusa*"; the Swedish, "*Ryska snufvan*" and "*nyssjuka.*" In Norway and Denmark it has been given the name of "*nysesyge.*" In England, it has been called "bronchopneumonia" and "infectious bronchitis," also "contagious catarrh." In Cuba it is spoken of as *la componte.* In the United States the name "Harrison Grip" has been offered, in remembrance of the "Tyler Grip," of 1841, and it has also been termed "epidemic febrile catarrh." In Europe some have called it dengue fever; others, not wishing to commit themselves, have given it the compound title of "Grippe or Dengue," leaving the preference to the reader's choice. Perhaps its most original name is that given to the disease by a noted English physician, who has called it "bastard pulmonary rheumatism."

The variety of names proposed indicates the differences of opinion entertained in regard to the nature of this curious and serious disorder. As a matter of fact the disease appears to us to be so unlike any which has yet been fully described in the books as to deserve a special name. It is not influenza and it is not dengue, though it has at times symptoms like those of one or other of these disorders. For the present, the term "Grippe" seems the best, because it does not imply identity of nature with any other disease, and leaves the field open for a more exact and accurate designation whenever the nature of the disorder may be better understood.

BOOK REVIEWS.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the REPORTER.]

STUDENTS' AID SERIES, Volume I. Aids to Diagnosis, Part I, by J. MILNER FOTHERGILL, M. D. Aids to Diagnosis, Part II, by J. C. THOROWGOOD, M. D. Aids to Diagnosis, Part III, by J. MILNER FOTHERGILL, M. D. 8vo, pp. 202. New York: G. P. Putnam's Sons, 1889.

This first volume of a new series of small textbooks for students, contains three parts, the first and third by Dr. Fothergill, and the second by Dr. Thorowgood. The first part is devoted to symptomatology, the second to physical diagnosis, and the third to "What to Ask." The first two parts are fairly uniform in type and general arrangement of headings; the third part is in a different type, and has a different arrangement. The whole book is very poorly printed

throughout, and the paper is by no means first class. Judging by the authors' names much valuable information may be found in the volume; but it is too much to expect that any one who can afford to buy a book better printed will wear out his eyesight reading this one.

Literary Notes.

—Poultney Bigelow will contribute to the number of *Harper's Weekly* to be published February 19 an article on "The German Reichstag," with a picture of a scene during a session of the Reichstag, and with portraits of Barth, Bamberger, Richter, Prof. Virchow, Windthorst, and Stoecker.

Correspondence.

Cremation.

To the Editor.

Sir: There is not a valid argument against cremation. It is the correct method of disposing of the dead. Every statement made, viewing the question from its many standpoints, is in favor of it. To illustrate the strength of my belief: arrangements were made four years ago with Mr. V. Harding, administrator of estate of Dr. F. Julius Le Moyne, to have my own body cremated at Washington, Pa. This special permission was granted, because I was born there; received my degree of A. M. there; was a firm believer in the plan; and there also are buried ancestors for two generations, and a number of their descendants. That is where the body of Dr. Samuel D. Gross was cremated, May 8, 1884. Mark the growth of cremation! When Baron De Palm was cremated—the first orderly event of the kind in the United States—reporters flocked from the four corners of the Republic, and thousands came to look upon it, or to be near it; the leading dailies printed column after column descriptive of it; and it was a sensation hardly surpassed by the Cronin murder. The Baron was a Theosophist, known to but very few. Dr. Gross's name was a household word on two continents. Here is what the local paper said: "The body of Dr. Samuel D. Gross, one of the most eminent surgeons of the country, was brought to Washington on the 8th, and reduced to ashes in the Le Moyne Crematory. He was 79 years of age." Four lines of brevier to note an occurrence which a half-dozen years before filled the press of the entire country. People learn rapidly, and upon no subject more rapidly than upon cremation; they will, in another generation, practice what those living thoroughly believe. And graveyards, expensive funerals and monuments, and all that, will be relegated to the dust of other barbarisms that have dissolved in the bright light of advancing civilization.

Yours truly,

J. M. Shaffer, M. D.

Keokuk, Iowa,
Jan. 8, 1890.

Puerperal Mastitis. Antipyrin and Antifebrin.

To the Editor.

Sir: In your editorial a few weeks back on "mastitis," you did not mention the treatment by pressure effected by means of a piece of rubber sheeting large enough to include the breast and thereby making equal pressure, by tying tapes to each corner and passing them around the body, one over the opposite shoulder to keep it in place and graduating the pressure by the tightness of the tapes in tying. A hole should be cut in the centre of the rubber, through which the nipple may pass. By this method all of the blood is driven from the breast and inflammation is prevented. I saw this a few years ago in the Reporter and have tried it several times successfully. My neighboring physicians have also tried it and they say the results are highly satisfactory. The intense fever that accompanies this disease can be promptly controlled by free doses of jaborandi.

In regard to the comparative value of antipyrin and antifebrin in controlling the pain and fever of "*la grippe*," I have found antifebrin more satisfactory than antipyrin. The patients recover sooner, and it controls the pain and fever equally well. The thought has suggested itself to me that possibly the large death-rate in the cities from *la grippe* and its sequelæ may be due to the careless use of antipyrin. I am satisfied it is not a harmless drug, but should be cautiously used in depressing diseases, of which *la grippe* is one.

Country doctors are, as a rule, less aggressive as regards heroic therapeutics than their city brethren. In a radius of many miles from here and a population of many thousands, I have not heard of a death from *la grippe* or its sequelæ. Antipyrin has

been given but little, and the results are satisfactory—in fact, I have not known of a winter so far with so few deaths. In the matter of cost—which is of material interest to those in poor, or moderate circumstances—antifebrin is much cheaper, costing twenty-five cents an ounce, while antipyrin costs $1.50 an ounce.

I have not tested antifebrin in dysmenorrhœa, but am highly pleased with antipyrin. To have a positive effect it is necessary to give it in fifteen-grain doses in severe cases. Repeat the dose in two hours if required. Keep your patient in a recumbent position for two hours after taking the drug. I have successfully treated, for the last few months, a woman who had had dilatation twice performed with only temporary relief, and removal of the ovaries was being seriously considered. Being called in to treat her in monthly attack I found her suffering intensely. Antipyrin in fifteen-grain doses gave her complete relief and continues to give her relief every month since. I am satisfied I have saved the ovaries of several women already by the use of antipyrin and hope to save many more in the future. The spaying of women is fashionable, but are not more women unsexed and rendered childless than are necessary?

Yours truly,

JOHN B. CARRELL, M. D.

Hatboro, Pa.,
Jan. 28, 1890.

Antipyrin and Antifebrin.

TO THE EDITOR.

Sir: I have heard through the newspapers that there is a "dearth of antipyrin on account of the extraordinary demand for use in the prevailing influenza." Now let us reason together. Antifebrin is worth with us forty cents per ounce; antipyrin $1.75 per ounce; the dose of the latter is fifteen to thirty grains, that of antifebrin five to ten grains. At the rate per dose the cost of antipyrin to antifebrin would be as $5.25 to forty cents. Now antipyrin is a patented medicine, as far as name is concerned, and so is objectionable to the strict upholders of the "code of ethics."

As to antifebrin, no deaths have been reported from its use. It is used for the same indications as is antipyrin. The dose is smaller, and any little too much has no unpleasant effects. The price is about one-tenth that of antipyrin. It is a better medicine for fever, because it has a tendency to promote perspiration. It is more sure in its effects as a remedy for neuralgic affections. It is not a patented medicine.

In writing the above I speak from a very considerable personal experience with both of them; and, aside from the price, I give preference to antifebrin for any use where either would be suitable.

Yours truly,

BEN. H. BRODNAX, M. D.

Brodnax, La.,
Jan. 24, 1890.

Porro-Cæsarean Operation.—A Correction.

In the REPORTER of February 15, page 215, there is a typographical error in the letter from Dr. R. P. Harris, as follows: on line 11 of the second column, Dr. Heusner's operation is dated 1888; it should be 1880.

NOTES AND COMMENTS.

Atresia of the Vagina.

Dr. Thomas More Madden, of Dublin, has an interesting article on atresia of the vagina in the *Lancet*, Feb. 1, 1890, in which he says:

The subject of vaginal malformation or occlusion, as a cause of sterility and marital troubles, as well as of menstrual disorders, is one the practical importance of which is evident. Nevertheless, if in current medical literature be rightly reflected the prevailing tendencies of modern gynecological opinion, it would seem that whilst so much attention is devoted all to utero-ovarian and tubal affections, the study of abnormalities of that passage, on the integrity of which the due performance of woman's sexual functions essentially depends, is now somewhat unduly neglected. The following observations are therefore submitted, in the hope of inducing more adequate consideration of some of those abnormal conditions of the vagina which are of unquestionable interest from the special difficulties connected with their successful treatment.

In the first volume of the Transactions of the Academy of Medicine, may be found a short communication of mine on the subject of "Cicatrical Occlusion of the Vagina,"

and in a later volume I described certain other morbid conditions by which, whilst the structural integrity of this passage remains intact, its functional uses in relation to marital life and impregnation were impaired or destroyed. On the present occasion I purpose to consider that fortunately rare, but graver, congenital malformation that is occasionally presented in cases of entire or partial absence of the vagina, by which the patient is not merely incapacitated for marital life, but is also subjected to great physical suffering and danger. This subject was frequently referred to by the older writers: "One of the most remarkable instances of nature's wanderings from her accustomed laws," observed Dr. Davis, "is that which consists in the entire absence of the vagina. Cases of this defective formation are not numerous, but they are sufficiently numerous to establish the fact of their existence. Most frequently they are found combined with absence of the uterus, as also with that of one or more of its appendages." When in those cases there has been any passage at all, it but rarely exceeded an inch or an inch and a half in length, and has usually terminated in a cul-de-sac. Of this variety of defective development was the case of a porter's wife, related by Morgagni, in which the external parts of generation were very diminutive, and there was scarcely to be seen a trace of hymen. The entry into the vagina did not equal the dimensions of the middle finger in any direction; the breadth of the vagina when opened longitudinally and displayed was scarcely more than two fingers, and there were no rugæ on it. The parietes of the uterus were extremely thin, and the entire organ appeared not to have acquired any increment of bulk since the birth of its subject. There were no ovaries, a deficiency to which may reasonably be ascribed the imperfect development of the vagina and uterus.

Dr. Blundell, who in many instances, though not in this, was far in advance of the gynecological knowledge of his day, shared in the ancient doctrine as to the usual absence of uterus and general inadmissibility of any reparative treatment in these cases, and says: "When the closure above [of the vagina] is not partial, but reaches throughout the whole extent of the genital passage, the case scarcely admits of a remedy, nor, indeed, will the catamenia form." Many years later the same view was supported by a surgeon to whom modern gynecology owes much of its development—viz., the late Dr. Marion Sims, who says: "I have seen five cases of congenital absence of the vagina, and in all of them there was no uterus." Dr. Macnaughton Jones observes: "If the vagina is congenitally absent, there is often no uterus as well."

Dr. Bousquet, of Marseilles, not long since recorded a case of this kind in the Gynecological Transactions, and in the recent American Cyclopædia of Gynecology we find the old opinion on this point still sustained: "The whole canal may be absent, a condition which is commonly combined with absence of the uterus, but in other cases a normal uterus in found conjoined with the closed vagina."

The doctrine supported by all the authorities just cited would point to the general inadmissibility of reparative treatment in such cases. Fortunately, however, this often reiterated view is not correct as a general rule. Since the celebrated case reported more than fifty years ago by Amussat, of successful formation of artificial vagina, several others of the same kind have been from time to time reported in disproof of former views concerning the necessary connection between utero-ovarian and vaginal developmental lesions, and the impossibility of reparative treatment in the latter. Even yet, however, the number of such cases successfully treated is by no means very large, and hence it may be of interest to record here three additional cases, illustrating the treatment of congenital absence of the vagina. The most recent of these occurred a few weeks ago in my clinic in the Mater Misericordiæ Hospital, where the patient was admitted under the care of the senior surgeon, Mr. Hayes, by whose kindness she was subsequently, on his examination and diagnosis of the nature of the case, transferred to my wards.

The subjoined notes are supplied by my clinical resident, Mr. T. G. Dillon, to whose unremitting attention the fortunate issue of the case is largely due.

Case 1. M. G., aged seventeen, a tenant farmer's daughter, living near Ballyhaunis, county Roscommon, was admitted to hospital on Aug. 16, 1889. She had never menstruated, and complained of constant pain in her back for the past three years, and on palpation a swelling as large as the fetal head at full term before her admission had been discovered in the region of the

uterus. This felt hard and movable, and was diagnosed to be a uterine tumor. At a certain period each month this swelling grew larger, and the pain in her back became more severe for a few days, when both gradually subsided. The mammæ and external genital structures were well developed. On Nov. 3 a minute recto-abdominal examination of the case, under chloroform, was made by Dr. More Madden, to whose ward the case had been transferred, with the result that he discovered there was complete atresia vaginæ, from a quarter of an inch below the opening of the urethra. He decided on operating for the defect, which he did, assisted by Dr. Duke, on Nov. 7. The patient being placed in lithotomy position, a transverse incision was made through the vulval cul-de-sac, and thence continued upwards and backwards in what should have been the axis of the vagina by breaking through with the handle of a scalpel and point of the operator's finger the dense cellular interspace between the bladder and rectum, the position and integrity of which were carefully observed and guarded by the use of the sound in the former and the retention of his left index-finger in the latter. In this way a passage nearly six inches in length was cautiously made to the uterus. This being globular, and no trace of the cervix or os tincæ being apparent, an incision was then made with a bistoury into the most prominent and accessible part of the uterus, through which a catheter was passed into the cavity, giving exit to about forty ounces of dark-colored tarry blood, which on examination proved to be menstrual fluid; at the same time, the tumor in the abdomen began to grow smaller, and on pressing over the region of the uterus the discharge came away more quickly, which showed the tumor to be nothing else than a hæmometra, or collection of retained menstrual fluid, which had been pent up in the uterine cavity. The uterus was then carefully washed out with an antiseptic solution, a drainage-tube was introduced into the uterus, and the new vagina plugged first with iodoform gauze, and subsequently with lint and cotton-wool soaked in glycerine of borax. The plug was removed and a fresh one put in twice daily, the uterus and vagina being douched at the same time through the drainage-tube, until the walls of the new vagina had healed over and the temperature fell to normal. On the day after operation her temperature rose to 104°, her pulse was 140, and, though there was no evidence of metro-peritonitis at any time, for some days her life hung in the balance, the symptoms pointing to septicemia. After the first week the main difficulty consisted in overcoming by repeated dilatation the great tendency to contraction of the new vagina. Ten days after operation a quantity of blood, similar in appearance to the catamenial discharge, was passed through the drainage-tube. The patient is now apparently quite well, and has a vaginal passage which easily admits two fingers. On Dec. 7 normal menstruation occurred.

For the particulars of the following interesting instance of congenital deficiency of the vagina I am indebted to my colleague, Mr. Coppinger, surgeon to the Mater Misericordiæ Hospital, by whom it was successfully operated on.

Case 2. H. K., a thin, delicate-looking and poorly-developed girl of eighteen, was admitted under my care into the surgical ward of the Mater Misericordiæ Hospital, May 10, 1889, complaining of pain in the back and of a tumor which was supposed to represent a psoas abscess. A superficial examination and inquiry into the history of the case sufficed, however, to prove that the tumor, which was about the size of an infant's head, and occupied the hypogastric and left lumbar regions was not an abscess, but a collection of retained menstrual secretion. An examination was now made under ether, when the fact that there was complete absence of the vaginal orifice, and apparently of the vagina, was elicited. On May 26 the patient was placed in the lithotomy position, and, with a finger introduced into the rectum and a metal male catheter, held by my house-surgeon, Dr. W. A. Morris, in the bladder, an incision was made in the middle line from about half an inch below the urethral orifice downwards for about an inch towards the anus. The recto-vesical septum was quite thin, and great care was necessary in order to avoid wounding the mucous membrane of the rectum on the one hand, or that of the bladder on the other. The two membranes were ultimately separated for about three inches before some loose areolar tissue was reached, and this was tunnelled with the finger until the abdominal tumor on its pelvic aspect could be felt. On pressing the latter from the front of the abdominal wall downwards, fluctuation could now be appreciated. Nothing resembling an os uteri could, however, be

discovered, so a trocar was thrust upwards in the middle line into the centre of the tumor. No fluid at first appeared, but, on passing a large aspirating canula along the same channel and pumping vigorously, some semi-fluid substance, jet black, and resembling tar in consistence and appearance, was evacuated. The canula was now removed, the opening widely dilated by means of my cervical dilator, and a quantity of weak, corrosive sublimate fluid passed into the cavity by means of an irrigator. In this way about a quart of tarry fluid was gradually evacuated, a drainage-tube was introduced through the new vaginal tube and new os into the cavity of the uterus, and the patient, after an operation which occupied more than an hour, sent back to her ward. There was no subsequent rise of temperature, but great difficulty was experienced in keeping open the new vaginal tube. With this object the patient was repeatedly etherized, drainage-tubes of various description being used. Indeed, but for the care and attention of my late house-surgeon, Dr. Morris, the operation would, I believe, have failed in its ultimate object. In the end, however, normal menstruation was established, and the girl left the hospital cured. I may mention that I heard from the country on December 17 that she was in good health.

Dr. Duke, gynecologist to Steeven's Hospital, has kindly furnished me with the notes of another case, under his care, also illustrating the successful treatment of this condition:

Case 3. M. C. was brought to me at the Rotunda Hospital by her mother, who informed me that she had never menstruated. As she was only seventeen years of age I adopted the usual routine treatment—hot baths, iron and aloes, etc.; but finding it of no use I made an examination, and could find no trace of the vagina; there was a dimple only where the orifice should be. The patient being poor, I had no assistance with the operation but her own mother, who, being a sensible woman, did as she was told. I administered ether, tied the patient up, and, having previously determined by the finger in the rectum and a sound in the bladder that a uterus existed, I worked my way with the finger and scalpel up to the cervix uteri, which was elongated and with the characteristic pinhole, as on making pressure over the uterus menstrual blood exuded, but only in small quantity; I plugged the newly-made canal with wadding soaked in glycerine and carbolic acid, and after a few days inserted a glass plug. The patient menstruated naturally while the glass plug was being worn, so I removed it, and I heard the girl got good health, till I lost sight of her, as she went to some part of the country with her relatives.

Cure of Fistula in Ano without the Knife.

Dr. L. C. Pike, of Norway, Maine, writes in the *Massachusetts Med. Journal*, February, 1890:

A prompt and successful result, in several cases of anal fistula treated by injection of iodine, has induced me to call renewed attention to this subject. While disclaiming, of course, any originality for this *plan* of treatment, the *manner* in which I have employed it is perhaps somewhat new. At all events, it has thus far been entirely and permanently successful in my hands; and the suggestions of M. Henry, assistant to M. Bonnafont, as long ago as 1858, on this subject, seem to me to have met with undeserved neglect.

The iodine should be employed in the form of a *saturated ethereal* tincture. Its advantages over the officinal or alcoholic tincture are obvious. It is not only *stronger*, and thereby excites inflammatory adhesion in the walls of the tube, but the ether evaporates almost momentarily, and a pure coating of iodine is left along the fistulous track, which doubtless encourages absorption.

The instrument I have used is an ordinary hypodermic syringe, with small silver canula, which may be readily bent to correspond with the direction of the sinus, and the mode of operation is as follows: After exploring the fistula with a *very small* probe (the ordinary probe of the pocket-case is far too large), after determining its course and extent, the patient is to be placed in a good light and a glass rectal speculum introduced, with its fenestrum opposite the internal orifice of the fistula. The canula is now bent to the required curvature and introduced, when the syringe, filled with tepid water, is screwed on, and the surface thoroughly cleansed of all extraneous matter. This step is not only essential, but serves to allay timidity, or dread of the subsequent operation. Next, by pressure, the fistula in its whole extent should be dried out, and the

iodine will thus come in direct contact with its walls. Introduce now into the speculum a quantity of absorbent cotton. This will absorb any of the iodine which might otherwise be injected *through* and injure the mucous membrane, and by its characteristic stain will serve to show the completeness both of the fistula and of the operation. The canula may now be re-inserted and the injection made. It should be done *slowly*, and at the same time the canula gradually withdrawn. Every part of the surface will thereby be reached.

The operation, which is not very painful, should be premised with a cathartic and followed with a full anodyne, as ordinarily with the time-honored knife method. The patient need not be confined to his bed, or room, even for an hour.

Thus far I have performed this operation four times, and, as remarked above, with immediate and complete success. The patients were, all but one, below thirty years old. One was tuberculous, but no appreciable injury accrued from thus checking what we were once told is in phthisis a conservative drain. In my first case, a clerk, æt. 23, there was a dense and almost cartilaginous state of the fistulous wall, and the injection had to be repeated; but in the others one "sitting" alone was called for.

Curious Vesical Calculus.

Dr. W. S. Elkin, of Atlanta, Ga., reports in the *Southern Medical Record*, February, 1890, the case of a boy 11 years old who, in last December, consulted him in reference to cystitis that had been troubling him for the last six years. He found him weak and anemic, presenting much physical evidence of long suffering.

On December 11, 1889, in presence of the class of the Southern Medical College and with the assistance of Drs. Gaston and Nicolson, the boy was anesthetized, six ounces of boracic acid solution injected into the bladder and an exploration made with Thompson's searcher. The presence of a stone was at once detected.

On December 14, the patient was again brought before the class, anesthetized, placed in the lithotomy position, six ounces of boracic acid fluid were injected into the bladder, and the stone was again recognized with the searcher. Dr. Elkin did the lateral operation, under strict antisepsis, and removed a stone weighing 460 grains. On entering the bladder with the stone forceps, he came in contact with the calculus, which was presenting at the neck of the bladder just behind the prostate gland. It was easily grasped, but in endeavoring to extract it, although very gentle force was used, a part of it crushed and a portion about one-half inch in diameter, and an inch long, broke off from the nucleus and was removed. The forceps were again introduced and an attempt made to seize the remaining portion, which was wedged above and behind pubic bone and could not be reached until the operator had removed the instrument and introduced his finger and dislodged it from this position. It was then readily seized in its short diameter, and extracted. This fragment, which proved to be the nucleus, was about two inches long and an inch in diameter at its greatest thickness.

The calculus was of such peculiar shape that when the two fragments were put in their natural position it was found to be shaped like a boot. The short or horizontal portion presented at the orifice of the urethra and the long or vertical portion was behind and above the pubic bone. The inorganic element composing the calculus was phosphate of lime, which accounts for its interesting and peculiar shape, since it often happens that this special form of calculi conform themselves to the shape of the bladder.

For the first twenty-four hours after the operation, there was incontinence of urine. The temperature on the second and third days was 102½°. After this it became normal, the wound healed rapidly by granulation, and in less than three weeks after the operation, the patient was entirely well and had returned to his home in Alabama.

Antiseptics, or Plain Water.

Dr. Chas. R. Illingsworth, of Accrington, writes, under date Dec. 10, 1889: "It seems to me that the best way to prove the superiority of antiseptics over water, in surgery, is to use the simplest form of dressing, with a penetrating solvent vehicle for the antiseptic agent. In this way only can the deeper tissues be thoroughly reached, and deep suppuration in all cases be thus avoided. There is no more potent combination of this nature than the solution of biniodide of mercury in iodide of sodium. I have used

it in all kinds of wounds, abscesses and sores, and have found that it prevents suppuration, and ensures rapid union—by first intention in all possible cases—without the slightest irritation of the skin. I bathe recent wounds and amputation flaps once freely with the 1 in 1,000 solution, before bringing the edges together, but wash and dress afterwards with the 1 in 2,000 on ordinary lint once folded, and covered with gutta-percha tissue. I change the dressing every day for four or five days, and then less frequently, or dress with some antiseptic ointment. Dressed in this way with pure water, wounds would stink in two days, and suppurate in four." — *Dublin Journal of Med. Science*, February, 1890.

Tri-State Sanitary Association.

Arrangements have been completed to hold a Tri-State Sanitary Convention at Wheeling, W. Va., Feb. 27–28, 1890. Representatives will be present with papers and addresses from Pennsylvania, West Virginia and Ohio. The object of the Convention is to consider the question of floods and their results from a sanitary standpoint, and the best methods of managing the sanitary interests of a given community after such a calamity.

Owing to the relations held by these three States with reference to large rivers and the numerous towns in each one of these States that are annually affected by floods and their results, it has been thought wise to hold a convention for studying how best to manage the sanitary interests of cities and towns so affected.

Every person interested directly or indirectly in this important subject is earnestly requested to be present and assist in discussing the papers, and add whatever information he can to the solution of the practical questions.

Further information may be obtained by addressing the Secretary, Dr. George I. Garrison, Wheeling, W. Va.

National Conference of State Boards of Health.

It has been decided to hold the next Annual Conference of State Boards of Health at Louisville, Kentucky, about May 1st.

As heretofore, the Conference will be principally devoted to the consideration of questions relating to the practical work of State Boards of Health, and in order that the discussions may be of the greatest value a list of the questions to be presented will be printed and sent to all State, Dominion, and Provincial Boards of Health.

All the Boards of Health are requested to send to Dr. C. O. Probst, Secretary of the Conference, at Columbus, Ohio, not later than March 1, 1890, one or more questions or propositions which they desire to have considered.

NEWS.

—It is proposed to establish a night medical service in London.

—Dr. Wharton Sinkler has removed to 1606 Walnut Street, Philadelphia.

—The sixth centennial of the foundation of the University of Montpellier, France, will be celebrated during May, 1890.

—A case of body-snatching has come to light in Knoxville, Tenn. The "subject" was found in the Tennessee Medical College.

—The Legislature of California has passed a bill appropriating $80,000 for the erection of a new medical college for the University in San Francisco.

—A German hospital is to be erected in Brooklyn, and also one in Jamaica, Long Island. The managers of each have already elected themselves.

—Dr. Frank Ferguson, Pathologist to the New York Hospital, has been elected Professor of Pathology in the New York Post-Graduate Medical School and Hospital.

—A Bacteriological Institute of Preventive Medicine is to be established at the University of Cambridge. One of the principal lines of work will be anti-rabic inoculations.

—Several prominent physicians of New York City have joined in an appeal to the people of the State for the preservation of the Adirondack forests. These are gradually being destroyed through the introduction of small railroads in the interests of the lumber and iron industries.

—The treasurer of the tenth annual Charity Ball was authorized on Saturday to distribute $2,150 each to the Sheltering Arms, the Philadelphia Polyclinic Hospital, the Visiting Nurse Society and the Philadelphia Lying-in Charity and Nurse School, being the proceeds of that ball.

SUPPLEMENT TO THE MEDICAL AND SURGICAL REPORTER, FEBRUARY 28, 1891.

Suggestions for the Treatment of Tuberculosis.

After the sheets for the REPORTER of February 28 were printed, the following communication was received from Prof. Samuel G. Dixon.

TO THE EDITOR—*Sir*:—As I have never felt sufficient confidence against the toxic effect produced by subcutaneous injections of de-vitalized tubercle bacilli upon the animal economy suffering with tuberculosis, to risk its use in [illegible], I have been using, for some time past, as stated in former communications, a long line of other agents, and I believe that it is only right and proper for me to again call attention of all workers in bacteriological investigation to what I have before strongly hinted at, when alluding to the effects of food, light, temperature, etc., upon the growth of the tubercle bacillus on an artificial culture pabulum.

Glycerine is one of the substances that I have employed in excess since 1889, as specially mentioned in previous articles, and with a marked effect on the growth of the tubercle bacillus.

After satisfying myself that I had pretty clearly established the effect of an excess of glycerine in the nutritive Agar-agar glycerine medium upon the growth of the organisms, I went on to introduce large doses subcutaneously into the animal economy, where a tuberculous process was going on.

In the few cases thus treated, there has, to all appearances, been produced a marked change in the tuberculous process in the animals. Therefore, to facilitate matters, I hasten to place before my colleagues the suggestion indicated above, and I should be very glad if they would themselves try its action in the animal economy, and report their observations.

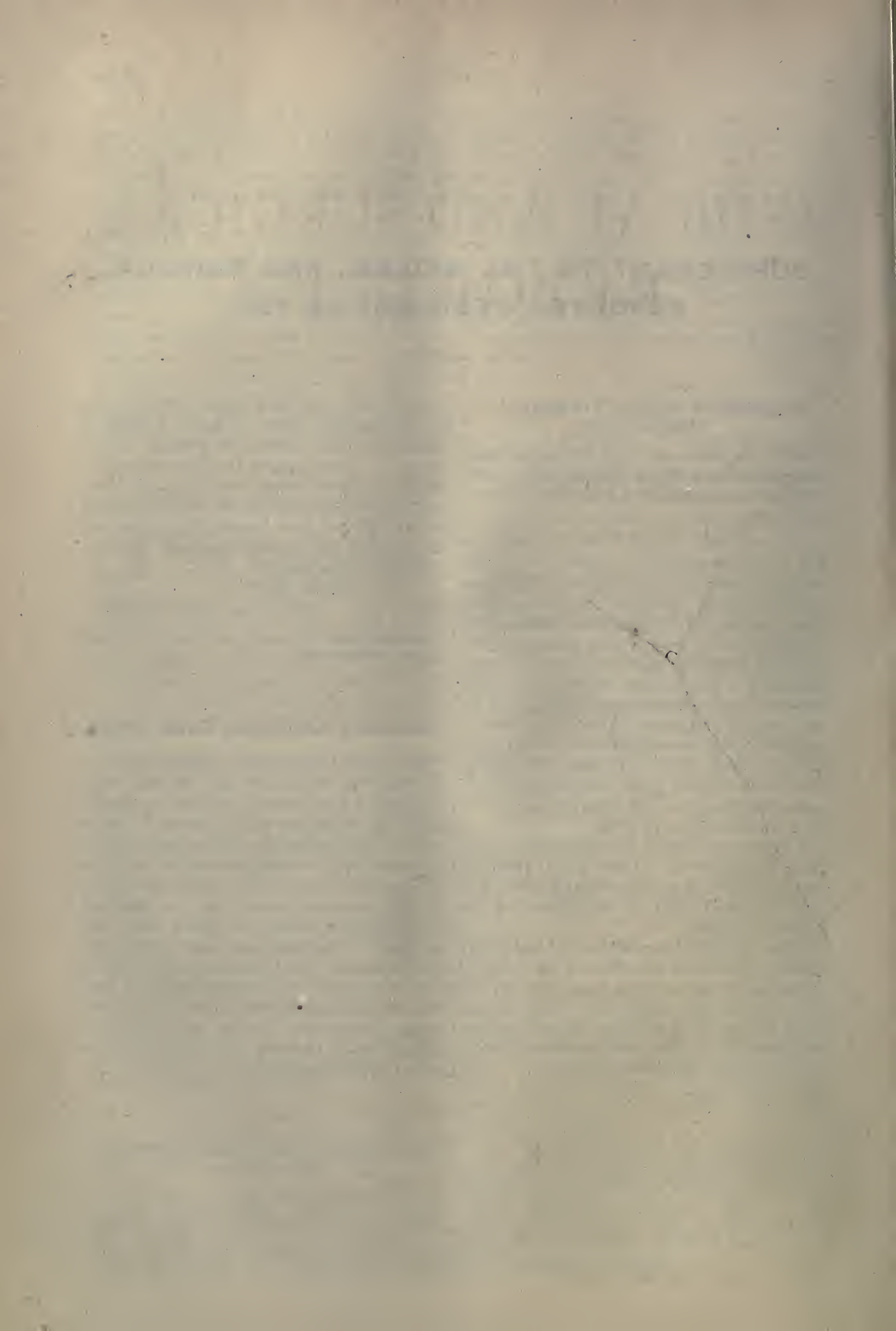
Yours truly,

SAMUEL G. DIXON, M. D.

Bacteriological Laboratory, Academy of Natural Science, Philadelphia.

Liebreich's Remedy for Tuberculosis.

The cable brings news, dated February 25, that Prof. Liebreich had, on that day, described a new method of treating tuberculosis at a meeting of the Berlin Medical Society. The substance used is cantharidate of potash, which is administered in solution by systematic injections under the skin. Clinical experiments made by Drs. Fraenkel and Hermann seem to prove that the substance is remedial in tuberculosis and other diseases. Prof. Liebreich says that he is still carrying on his investigations, and that the announcement of his discovery was made prematurely, under pressure from Minister von Gossler, who is giving the matter much attention.



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CLINICAL LECTURES.

LACERATION OF THE PERINEUM AND CERVIX.—RESTORATION AND RETENTION OF THE UTERUS IN ITS NORMAL POSITION.[1]

BY E. E. MONTGOMERY, M. D.

Laceration of the Perineum and Cervix.

Gentlemen: I know very little about the patient whom I bring before you to-day. The reason of this is that she is a Swede and there is no one in the hospital just now who is conversant with her language. It is to be regretted that we cannot obtain her past history to begin the study of her case; but this to-day is not so necessary or so important as it was in the days of our forefathers nor even ten years ago. The subjective symptoms are those of which the patient complains. They are often merely the manifestations of the complaint as seen by the erring eye of the sufferer's diseased mind, and are apt to lead you to wrong conclusions. The physical or objective signs of disease are those elicited by the educated senses of the physician and each day are becoming more and more important in our diagnosis in proportion as we insist upon their thorough study. Supposing the history of this patient such as to justify us in suspecting uterine disease, I propose to investigate with you the objective symptoms and determine by them her condition.

I first place the patient on the table in a supine position with her limbs drawn up. Let every precaution be taken to expose no more of the patient's person than is necessary. In this way you meet the demands of delicacy and her confidence and respect are gained. This position is becoming more

[1] Delivered at the Philadelphia Hospital.

and more popular among gynecologists. The patient being now in position, I begin my examination of the external genitalia by inspection. You should examine all the parts presented, being careful to concentrate the mind on each one of the different conditions and then try to reach the conclusions to which they lead. In the first place you will notice that the vulvar orifice is separated, indicating a previous laceration of the perineum. On inspection I also find that there is a leucorrhœa and shall decide later whether this is from the vagina or endometrium. Separating the limbs more widely, I find that the tear is not a bad one. As far as I can see into the vagina, it does not seem to be inflamed, so that I am the more inclined to think that the leucorrhœa comes from the womb rather than from a mere vaginitis.

Having then ascertained these two facts by inspection, I am ready now in like manner to find out what can be determined by the next method of physical examination, viz., the touch. Passing my finger into the vagina, I carefully examine everything I meet from the orifice up to the upper end of the canal. The anterior wall of the vagina is prolapsed and presents a condition known in gynecology as cystocele. Passing my finger up the anterior part of the vagina, I find that the anterior part of the lip of the cervix is turned up or everted, while the posterior part of the cervical extremity is not drawn after it, as it should be, if the cervix were normal, but is drawn backward and upward, thus filling up the posterior commissure of the vagina. From these facts I know that there is a tear on each side of the neck of the womb, or what is described in books as a bilateral laceration of the cervix; and, moreover, it does not feel healthy, but there is an abraded condition. The axis of the cervical canal is about normal, which would not be true if there was ante- or retroversion of the uterus. Introducing my finger into the posterior commissure, I find that there is a tumor in Douglas's pouch, and that this tumor forms an obtuse angle with the axis of the cervical canal. I am most strongly inclined to consider this apparent tumor as nothing but the body of the retro-flexed uterus. However, let me not be too hasty to decide. For there might be a fibroid tumor on the posterior wall of the uterus, projecting in the direction of this enlargement, which I consider as the body of the uterus; or both these diagnoses may be true; that is, a fibroid tumor on the posterior wall of the uterus may have caused the body of that organ to fall backwards while the direction of the entrance of the cervical canal remains in its normal position, thus causing a retroflexion. Therefore, by means of touch I have confirmed my visual diagnoses of rupture of the perineum and endometritis. I have discovered a cystocele, a bilateral laceration of the cervix with eversion and abrasion of the lips, an enlargement or simply a retroflexion of the uterus and, what I have not mentioned before, a congestive hypertrophy of the whole womb.

I now resort to the method of examination by means of conjoined manipulation; that is, I introduce two fingers into the vagina and with the other hand press on the surface of the abdomen. By these means I have the parts more thoroughly under my control. I confirm my previous diagnosis and find that the tumor in Douglas's pouch answers far more perfectly to the body of a retroflexed uterus than it would to a fibroid tumor on its posterior wall. Besides I am now certain that the body of the womb is absent from its normal position and that, if this tumor be not the body of the uterus, the latter is wholly absent from the pelvis, an idea that is preposterous, as there has been no operation since this woman bore a child.

Now sometimes there are difficulties in the way of arriving at a conclusion, such, for instance, as firm resisting abdomen walls or corpulency. When this is the case and the enumerated methods of examination are unsatisfactory, we may, after excluding the possibility of pregnancy, resort to the use of the uterine sound. It is usually inserted through a speculum, but it is better to use the fingers as a guide, as permitting greater freedom of movement. If after its insertion into the cervical canal the sound turns backwards and downwards—as it does in this instance—instead of passing upward and slightly forwards, it is certain that a retroflexion is present, though it does not exclude the possibility of a growth of foreign growth on or in the body of the uterus. But, if, upon its introduction into the cavity of the womb, the sound passes in for an abnormally short or abnormally long distance, and there is a deviation from the normal axis of the canal, there is a foreign body outside the uterus, causing this distortion or what is far more common, there is a foreign

growth in the cavity or walls or the womb itself, and of such growths fibroid tumors are by far the most common.

The introduction of the speculum is not so much to find out the position of the uterus as to inspect the condition of the vagino-uterine mucous membrane, and the character of the discharge. Here the laceration is so great and, being bathed in the mucopurulent discharge from the womb, might readily be taken for a malignant degeneration, if I did not draw the edges together and prove it to be a laceration.

What, then, are the facts that I have elicited by my examination? They are as follows: There is a slight rupture of the perineum, a relaxation of the vagina, and a cystocele. There is a bilateral laceration of the cervix with eversion and erosion of its lips. There is a leucorrhœa and retroflexion together with the disappearance, or at least, great lessening of the anterior and posterior commissure of the vagina. There is also congestion and hypertrophy of the uterus. The bilateral laceration is, next to the one on the left side alone, more frequent than any other. During my earlier service in this institution, when I had charge of the obstetrical cases, I found by actual examination that of the patients who were delivered here, nearly all sustained slight lacerations of the cervix; that the tears were nearly all on the left side, and that many of them recovered without an operation. The extensive lacerations, such as the patient I have shown, where the torn edges are widely separated, have been aptly termed by Professor Goodell "celery-top" laceration of the cervix.

All these conditions as enumerated above, may be, and generally are, due to the lacerations; and as the tear of the perineum is slight and at most has no other direct result than to cause a relaxation of the vagina and, by thus taking away its main support, to encourage a prolapse of the uterus, I am going to disregard it nearly entirely and show you how the other conditions are due to the laceration of the cervix. These bad tears do not heal without an operation; but, by being a source of irritation, they invite a larger flow of blood than normal to the uterus and thus prevent its proper involution, so that it remains larger than it should. This determination of blood to the uterus causes the whole organ to become congested and these facts cause an increased pressure upon the uterine ligaments, giving rise to dragging and bearing down pains in the sacro-lumbar region. As the womb becomes heavier and descends, there is an ever increasing traction exerted by the erect vagina upon the lips of the cervix, causing an eversion and a tendency, especially where the tear is on both sides, to lessen or to eradicate the anterior and posterior commissures. This exposed raw surface does not heal as it should; both because the two edges are drawn apart and it is constantly bathed in irritating discharges from the uterus, so that there is the gradual formation of a hard cicatricial tissue about the os which feels to the unpracticed finger very much like a malignant growth, and this error in diagnosis is more liable to be made where there are granulations, which bleed easily and the profuse discharge from which decomposing produces a fetid odor.

Now, as the wound becomes more and more congested and, therefore, heavier in such cases, it is apt from its own weight to turn over backwards into Douglas's pouch, and then there is formed an angle between the cervix and body of the womb and this angle lessens the calibre of the cervical canal, causing dysmenorrhœa; it lessens also the diameter of the blood-vessels, causing a venous congestion. Thus the weight of the womb is increased. The vagina, which is one of the supports of the uterus, becomes slightly congested and shortened until its anterior or posterior wall, or both, protrude into the cavity of the canal and form what is known as a cystocele or rectocele. These are far more apt to occur when there is a rupture of the perineum.

An operation for the laceration of the cervix may not be attended with complete cure, but is nearly always followed by good results when the proper precautions are taken in the diagnosis. Therefore, it is the duty of the physician to decide when to operate and when to decline. It would be better not to operate in the following cases:

First. When the uterus is fixed by adhesive bands and there is already an inflammation of the ovaries and tubes. Operation here would be to add fuel to the flames.

Second. In women suffering from various obscure nervous symptoms accompanied by bearing down and leucorrhœa. The physician discovers a slight tear or fissure, and advises an operation as a panacea; but alas! the improvement is transient or unperceived. The patient loses hope of recovery, and be-

comes resigned to a life of invalidism, from which it is difficult to rescue her.

When there are no nervous symptoms; when the laceration is slight; when there is no eversion of the two lips of the os; and when there is no hard cartilaginous tissue formed in the angles of the tear, there is no necessity for an operation; all that is needed is, rest, tonics and moral suasion.

Of course the uterus is supposed to be in its normal position and not congested, or very little congested; for, if it be not in its normal position, the woman, while she may feel better for a time, will soon begin to suffer again even after the operation has been performed, as the bend or other abnormal position of the womb, by causing a practical stenosis, will keep up the congestion and retain the discharges in the body of the womb instead of allowing their escape. The class of cases in which most good is done by an operation are those in which the laceration is extensive, and is accompanied with an eversion and an endometritis which is keeping the os and parts below constantly bathed with its irritating discharges. This last condition is to receive particular attention before the operation is performed, and in nearly all cases the physical and nervous condition is also to receive attention. For some time before the operation she is to remain in bed and receive twice daily irrigations into the vagina of hot water. She is also to wear tampons of cotton wool, saturated with a solution of one drachm of carbolic acid, and one ounce of alum, in eight ounces of glycerine. These tampons are to be introduced into the anterior and posterior culde-sacs of the vagina and renewed every other day, unless they become soiled in the interim, when they are to be renewed daily. By this means the angle between the body and neck of the womb is rendered less acute and the returning circulation less interfered with and the congestion of all the parts materially lessened. A mixture of two parts of the saturated tincture of iodine with one part of carbolic acid may be painted over the cervix twice a week. At the same time a few drops of this same solution may be slowly injected into the cavity of the uterus by means of a long, slender pipette.

This injected fluid should be encouraged to flow out soon through the previously dilated, or already thoroughly patulous os; for, if uterine tenesmus be set up by its irritation, the contraction of the womb and os together may drive the fluid through the Fallopian tubes into the cavity of the peritoneum.

This method of intra-uterine injection is much to be preferred to that by means of the applicator; for the fluid on this instrument was often entirely, or nearly entirely, squeezed out while it was being passed through the cervix; and, of course, this was the more apt to occur where the cervical stenosis was greatest and very often the endometrium that needed the most thorough application received the least treatment. In cases in which there is much viscid mucus discharged and there are vegetations on the endometrium, the cavity of the womb is to be thoroughly curetted before the operations for the restoration of the cervix and perineum are done. By this means the uterine cavity is cleansed of all unhealthy matter and its discharges are greatly lessened.

I shall perform both these operations at the same sitting, because it takes no longer to recover from both than it takes to recover from one. Besides, the woman's health would not be entirely restored by one operation, and her confidence in us is not so much increased. As a result of these two facts there will be some continuation of the suffering neurasthenia and when the time for the second operation comes she will be so disgusted and neurotic that she may not be willing for the second operation to be done at all.

If after the operations the uterus be still displaced, we shall consider the means of replacing it, and when this is accomplished we shall select the means of retaining it in its proper position, so that the remainder of this lecture will be devoted to the various methods of the restoration and retention of the uterus in its normal position.

Restoration and Retention of the Uterus to its Normal Position.

These two headings are not the same, though they may seem to be hopelessly confounded in the minds of students when they tell you that a pessary is an instrument to get the womb in its right place, when its real object is to retain the uterus after it has been already restored to its normal position. Before enumerating the methods of replacement, let me say that not all uteri that are displaced need be forcibly teased back into their places. There is a wide deviation in position that uteri may have and still not

require any replacement. The question: When is a uterus to be replaced?—is to be answered not only by the amount that its position differs from that given in books as normal, but also by the subjective symptoms that it causes. If it gives rise to no pain nor physical inconvenience, it would best be let alone. Many women have lived for years with their wombs displaced and have not suspected that there was anything wrong.

The three principal methods of restoration of the uterus are as follows: 1. The patient is placed in a supine position with her limbs drawn up on her abdomen. Two fingers are now introduced into the vagina, one anterior and the other posterior to the cervix, while the other hand is placed upon the abdomen; the middle finger in the posterior fornix of the vagina pushes up the fundus while the index finger presses the cervix backward, thus acting upon the uterus as a lever. The middle finger may be introduced into the rectum. When the fundus is tilted sufficiently forward to permit it is grasped by the external hand and drawn down upon the pubes. If the two fingers in the vagina fail to catch the cervix, it may be grasped with a volsella forceps, or, what is less desirable, with a tenaculum, and the lever-like action exerted as above, the principle in both being identical. When this plan is not applicable nor desirable, we resort to the use of the uterine sound. This instrument is introduced directly to the fundus of the uterus and then, using this as a lever, its handle outside is passed slightly upward and then through an extended arc downwards and sideways, and by these movements of the hand the uterus is made to pass through smaller arcs in precisely the opposite direction, viz., first downwards, then upwards, and latterly opposite to the direction in which the handle was moved. This method is somewhat modified by the use of the jointed sounds in which a rachet is worked at the lower end. The same principle is used here as in the former method and, indeed, the same principle is in the third method; for principles do not change. In using this third method the patient is placed in the genu-pectoral position. A Sims speculum is inserted and the entrance of the vaginal canal opened. As the air rushes in the uterus is carried upward but its position is not corrected. It is, however, readily replaced by pulling down upon the cervix with a tenaculum, when the weight of the atmosphere will carry the fundus upward. When any of these methods is used the patient would far better remain in bed for awhile; because the uterus is generally congested. For this trouble tampons of cotton wool, saturated with the glycerine solution mentioned above, are to be placed in the anterior culs-de-sac of the vagina until all, or certainly a great deal, of this congestion is gone.

It sometimes happens when there has been a retroflexion and prolapse for so long a time that the culs-de-sac of the vagina may have become so shortened that the posterior one presents an unsuitable nidus for the pessary to rest in. Therefore, by the use of the tampons, while the general congestion is lessened, the length of the vagina and depth of the culs-de-sac are also increased. When these three objects have been gained after the replacement, the pessary may be introduced with advantage, and for this purpose the variety known as the Hodge retroversion pessary, or some modification of it, is the one generally used.

It should be remembered that the posterior tear does not support the fundus, but that the pulley-like action of the posterior vaginal wall draws the cervix back, and consequently the other end of the lever, the fundus, falls forward.

IMPACTED RENAL CALCULUS.—LEAD POISONING.[1]

BY JAMES TYSON, M. D.,

PROFESSOR OF CLINICAL MEDICINE, UNIVERSITY OF PENNSYLVANIA.

Renal Calculus.

Gentlemen: I bring before you first to-day a case of some obscurity and extreme practical importance. She is a woman, 35 years old, who has been in the wards for some time. As a girl and a young adult she always enjoyed good health. She has rarely missed a day's work, and has always been temperate. She had inflammation of the lungs nine years ago. She came to the hospital five years ago with the symptoms arising from the change of life. Her present trouble began soon after with pain severe enough, she says, "to double her up," located in the right lumbar region, from

[1] Delivered at the Philadelphia Hospital.

which place it did not radiate in any other direction. There was no subsequent difficult micturition, nor anything to indicate the cause. The pain continued as a dull ache, keeping her awake at night. Nine months ago she had a second attack, and four months later a third. She is losing strength and flesh. Her bowels are inclined to be loose. She is now feeling better than she did some time ago. Her temperature for the last few days has often been above normal, and in the evening invariably so; 99° is the lowest and often it is 100° or 100.4°, showing that there is an irritation going on in some place. One can often make a diagnosis simply by looking at the temperature chart, and there is no better way of determining whether the patient is really ill than by an examination of the thermometric record. The chart shows that there is something radically wrong with this woman.

Her history suggests an examination in the region of the pain complained of. As she is lying flat upon her back, we examine the region of the right flank with the view of discovering any visible alteration. I cannot say there is at this moment. The two sides seem to be very nearly symmetrical. I will palpate it to feel if there is any difference imparted to my sense of touch, and I feel here very distinctly a resistance in this right flank which is not felt in the left. As I run my finger backward I find this greater resistance throughout this region. As I endeavor to elicit tenderness here, I find some, but less than there has been. Now, what corresponds to this region? It is the region of the kidney. The kidneys on the two sides do not lie precisely in the same situation. The right is a little lower than the left, but both extend below the edge of the 12th ribs, the right for ⅔ and the left ½ of its extent. We know, then, that the kidney is the seat of the trouble. The other causes of pain here, such as a post-peritoneal tumor, carcinoma and sarcoma of the kidney are not common. We will now proceed to an examination of the urine to see what information it will give us. Macroscopically, it is a turbid urine, and standing for some time, there is a white, creamy sediment. This is not natural. The urine is acid in reaction, but not highly so. We will next test for albumin, using the ordinary heat and acid method. On heating this there is a turbidity produced greater than previously existed. This is permanent, on adding an acid, and is, therefore, albumin. Thus there are tenderness and hardness, previous pain in the right flank with albuminuria and a sediment in the urine. This sediment has been examined and found to be pus, without any tube casts.

The most and frequent cause of such symptoms is an impacted calculus. Carcinoma of the kidney produces tenderness and hardness, but is not so apt to produce an elevation of temperature and pus in the urine. There may be an extensive cancerous involvement of the kidney without any alteration of the urine for the reason that rarely do the elements of cancer descend with the urine. Then in cancer there is a cachexia which is not here present. Cancer generally occurs early in life and sarcoma of the kidney is apt to be congenital. Then the course of such cases is from bad to worse, while this woman is at times better, and this fact is compatible with the presence of stone in the kidney. Tuberculosis of the kidney, another cause of a trouble such as this, is rare, and is attended with the presence of a cachexia and a considerable quantity of pus in the urine. There is one other possible condition, and that is the so-called "surgical kidney," a suppuration of the kidney from the extension of an inflammation of the bladder up the ureters to the pelvis of the kidney, or as the result of obstruction from other cause than stone in the kidney. Stone in the bladder, or a simple inflammation of the bladder, will cause this condition, but generally the symptoms primarily affect the bladder. Upon questioning the woman I learn that she does not urinate too often now, nor did she ever. If she had had primarily a bladder trouble, this would not be the history. The character of the pus is also of value. If it is from the bladder, it is apt to be associated with alkaline urine, and the pus becomes glairy and will not rise in a pipette, and it contains numerous glistening crystals of the triple phosphate of ammonium and magnesium. If it be from the kidney, this is not so, but it is more intimately admixed with the urine and will readily rise in a pipette. Everything combines then to prove that the pus comes here from the kidney, and most probably the cause is a stone in the kidney, although we do not know that this is absolutely the case.

Now as regards the treatment. There is no department of medicine scarcely in which the possibilities of successful treatment have

advanced more than in the surgery of the kidney. However, not every case of this kind should be operated upon. In the history of this woman we have a most striking illustration of the next best thing which can be done after operation, and that is the effect of rest upon her condition. Note that every night after a hard day's work she was worse, and that when she rested she felt better. With all this, however, you will notice that she is in a feverish state, and this is more or less a wear and tear upon her system. Along with the rest treatment, medicinal means to relieve her pain must be resorted to. Thus we may give hypodermically one-quarter of a grain of morphia, or even a larger dose. Poultices of flaxseed or corn-meal are useful to allay the pain, applied over the region of the kidney. Much pain is caused by the accumulation of purulent matter in the kidney, and so it is well to keep the urine freely diluted by giving water of the purest character, as a quart, three pints, or two quarts of distilled water in twenty-four hours,—distilled, because we know nothing of the composition of the stone, and if we give alkalies, we may be increasing the concretion while attempting to diminish it. If we are positive that the stone is of uric acid—which it seldom is after it reaches a considerable size—the right thing to do is to render the urine alkaline. If the stone is alkaline, we have no certain way of making the urine acid. The administration of the mineral acids can only be successful by giving such a large amount as to be harmful. One or two substances, however, do render the urine acid somewhat, and these are benzoic and boracic acids. Knowing you have an alkaline stone, then give benzoic acid, five to ten grains three or four times daily, beginning with a small dose and increasing to one drachm in a day before stopping. Exactly how it produces the change in the urine is not known. These remedies should be combined with distilled water.

None of these measures are curative. The only thing they can do is to make the patient comfortable. Then comes the question of operation. Fifteen years ago it would have been considered entirely unjustifiable to operate upon a patient with a kidney in this condition. To-day the operation is almost as simple and as safe as the cutting of a felon. If the patient has a continued fever, 102° or 102½° every evening, with a morning temperature of 101°, with gradual emaciation, the operation certainly should be performed. Here is a case where the operation might be considered. She is improving without the operation at present, but she will never get well. She will go on with an evening increment of temperature indefinitely. Meanwhile, we will continue to treat her as we have been doing.

Lead Poisoning.

I have here a very interesting case, a companion to the case I showed you at the University Hospital a few days ago. It is a case of lead poisoning. The case I showed you was more acute and lead colic was a prominent symptom. The man worked only fourteen weeks in the lead works and already had acquired the blue line on the gums as well. This case is similar, but is not quite so acute. It is fortunate for a man to be poisoned easily and quickly, for then the condition is discovered and can be easily removed. If the disease is long in making its appearance it is more difficult to cure. This man worked in the lead about eight months before he was attacked. In his case it did not show itself by colic but by constipation, which is also one of the earliest symptoms. An examination very soon showed the pathognomonic sign, the blue line on the gum. This is more particularly manifested on the lower gum, and is passing away under treatment. Further study of the patient showed other symptoms, namely, a weakness of his extensor muscles. This, which goes on into paralysis, has as its ultimate result a very significant symptom, an inability to raise the hand, the so-called "wrist-drop." The drop is not present in this case, but when asked to raise his hand against some pressure he develops a weakness in his extensors. I can keep him from extending his arm at the elbow readily. Later the flexors become involved. We should go on now to examine his urine, for one of the best recognized causes of interstitial nephritis or chronically contracted kidney, is lead poisoning. There is no albumin here, nor is there likely to be in a case of such short duration.

These cases are often obscure, and the symptoms inexplicable until we learn that the patient has been working in lead. Then the poisoning may arise from soda-water fountains, from the passage of pure water through lead pipes, and occasionally from canned vegetables.

There are three sorts of treatment, the preventive, the palliative and the curative. The most important is the first and should be attended to by the employers. The lead is inhaled, and is taken in the food from contact with the hands. The employees of lead works should not be permitted to eat their food in an atmosphere of lead, and should wash their hands frequently, nor wear clothing too long without washing. Sulphuric acid drinks should be given them, and a sponge, moistened, and held in place by a rubber, should be placed over the mouth while at work. The difficulty often lies in the unwillingness of the employees to carry out these directions. The *palliative* treatment consists in the use of opiates to relieve the pain, and purgatives to relieve the constipation. The sulphate of magnesia is the best of these, as the sulphuric acid it contains unites with any lead in the alimentary canal to form the insoluble sulphate of lead, an innocuous compound, and thus further mischief is prevented. The *curative* treatment consists in efforts to eliminate the lead from the system, and for this purpose the iodide of potassium is the cardinal remedy, producing the iodide of lead which is soluble in the juices and is washed out in the secretions. In lead-poisoning the metal is present in the shape of an insoluble compound with albumin, and cannot be eliminated unless rendered soluble by some remedy. It requires the long and faithful use of the iodide of potassium to remove all of the lead. Measures to eliminate the lead by the skin, as by manipulation, hot baths, baths containing the hypochlorite of sodium, are all useful. In all of these cases there is a depravity of the blood, and therefore the patients should be well fed, with good, nourishing food. Even with these measures, obstinate cases at times resist our efforts, but in cases like the present one we may hope to get rid of the symptoms. One attack makes the patient more susceptible to another, and therefore the occupation should be changed. The paralysis may be treated by electricity, either faradization or the interrupted direct current, to control the tissues and prevent the fatty degeneration which at times takes place.

A SMALL BOX FILLED WITH LIME and placed on a shelf in the pantry, or closet, will absorb dampness and keep the air in the closet dry and sweet.

COMMUNICATIONS.

REPORT OF A CASE OF FRACTURE OF THE CLAVICLE AND SCAPULA.

BY READ L. BELL, M. D.,
SPRINGFIELD, OHIO,
PRESIDENT OF THE SOUTHWESTERN OHIO MEDICAL SOCIETY.

On September 11, 1889, I saw a boy of six years of age who had fallen headlong down a flight of steps and received some injury to his shoulder. The distance fallen was about six feet. As he fell he turned a half-revolution of his body, so that he struck the paved floor of the basement on the posterior aspect of the left shoulder. At no time after the immediate fright of the fall was there much complaint of pain. Three years before this accident he had disease of the hip-joint which was treated by the application of a Sayre's long splint, securing a good limb with slight shortening.

I saw the boy on the third day after his fall and found him playing in the garden, apparently feeling little inconvenience from his injury. When called he came into the house laughing but carrying his left hand rather carefully over the inguinal region, and was a little reluctant to move it. He could do so when urged, could carry it to the opposite shoulder or over his head, but could not pass it behind his back. Removing his clothing from his shoulder, it was immediately perceptible that he had received a fracture of the clavicle at its outer third. Brief examination was sufficient to determine that it was not a partial or "green-stick" fracture but a complete one, motion of the broken fragments being attended with distinct crepitus and the outer end of the inner fragment being displaced upwards and backwards. Taking hold of the arm near the shoulder and attempting to make extension along the line of the clavicle, for the purpose of ascertaining how near the broken ends could be brought into position, a second crepitant sound was developed near the shoulder-joint; allowing the arm to drop naturally at the sides it could be seen that there was a degree of flattening in the outline of the injured shoulder, though not so marked as in a dislocation. A distinct depression could also be felt between the acromium process and the head of the humerus. The

acromium itself was not injured nor was the acromal end of the clavicle displaced. Rotation of the humerus showed conclusively that the head of the bone moved with the shaft, and there could therefore be neither fracture of the shaft nor separation of its head from the shaft at the epiphysis, but there was lengthening of the arm from some cause, a slight deformity at the shoulder, and a separation of the humerus from the acromium process.

What was the explanation of this? Where was the source of the crepitus?

Placing one hand over the body of the scapula and holding it down firmly against the chest, while grasping the head of the humerus with the fingers of the other hand and using the acromium as a fulcrum, the head of the humerus could be brought up under the acromium to its normal position; but when the hold upon it was released it would immediately become displaced again, dropping downwards and slightly forwards and by that motion give rise to the crepitus. So little pain attended the manipulation of the shoulder that this manœuvre was repeated several times. Occasionally when the head of the humerus was brought up into its position it would remain in place for a moment, but a slight movement of the body or a slight touch of the finger would be sufficient to reproduce the displacement instantly.

The crepitus produced at this point could not have been transmitted from the broken clavicle, for it could be heard when the fingers, pressing upon the seat of the fracture in the clavicle, gave no evidence of motion of crepitation there, when the crepitus was produced in the shoulder; moreover, the crepitant note was different at the two points; it was flat at the shoulder, and of greater volume and lower pitch than that of the clavicle, and of such a character as would be produced by the motion upon each other of larger and more deeply seated bony surfaces.

The lad was comparatively thin, and there was little or no effusion about the joint; in fact the absence of effusion and the slight amount of pain were two marked features of the case and afforded the opportunity for a thorough examination. The head, or point, of the coracoid process could be felt readily on each side; and, while the process on the injured side seemed to move with the humerus, it could not be determined that it had any movement independent of the movements of the head of the humerus in reduction and displacement.

From this brief description of the case it will be seen that the interest of the case is chiefly diagnostic. What was the precise character of the injury about this shoulder-joint? Could it have been any of the glenoid dislocations of the head of the humerus, or a fracture of the shaft of the humerus, or a separation of the head from the shaft at the epiphysis? Was it a fracture through the base of the coracoid, including a portion of the rim of the glenoid cavity; or a fracture through the anatomical or surgical neck of the scapula?

With reference to the present case all the uncomplicated dislocations of the head of the humerus may be regarded as one; whatever reasons are applicable in accepting or rejecting any one will be equally applicable to the others, and all of them will be excluded by the following considerations: With none of these dislocations should we expect to find crepitus. There would, of course, be the flattening of the shoulder and the depression under the acromium, and these would be more marked than in any other injury about the joint, and especially more marked than in the present case. The elbow of the injured side would be abducted, the hand could not be placed on the opposite shoulder, the head of the humerus could be felt in some of its positions in the axilla, and when once the dislocation had been reduced it would remain in place. These symptoms were all absent in the present case, and dislocations may therefore be excluded from the discussion. A fracture of the shaft of the humerus and a separation of its head from the shaft at the epiphysis may also be excluded on account of the absence of deformity and loss of motion such as usually occur from fracture, and the fact that the head of the bone rotated with the shaft. Fracture through the shaft of the bone, moreover, would give rise to no displacement of the head and consequently would not be accompanied with flattening of the shoulder nor with depression under the point of the acromium. A separation of the head of the bone from the shaft at the epiphysis would give rise to little or no flattening or depression, would be attended with but slight deformity; the head of the bone would not rotate, and the crepitus would be dull and cartilaginous in character.

In fracture through the base of the coracoid process the detachment of the broken

fragment would produce greater displacement and give freer mobility of the fragment than we had in the present case. It would be movable also independently of any movement of the head of the humerus, it would not be associated with any displacement of the head of the humerus, and at the age of this patient—before ossification has taken place in the process—crepitus would certainly be faint and dull.

In considering the possibility of fracture through either neck of the scapula it is necessary to bear in mind that no fracture through the anatomical neck, conclusively proven by subsequent dissections or approximately proved otherwise, has yet been placed on record; surgeons and anatomists uniting in denying even the possibility of such an accident. Fracture of the surgical neck is also a rare accident; but a few well attested cases have been recorded.

Leaving fracture of the anatomical neck of the scapula out of the question, the diagnosis lies between a fracture through the surgical neck and fracture through the base of the coracoid process, including a portion of the glenoid rim. In favor of the possibility of the fracture through the scapula is the fact that the mass which could be moved under the fingers along with the head of the humerus in reducing the displacement seemed a much larger mass than would be formed by the coracoid process alone or the coracoid and any portion of the rim. Opposed to this is the infrequency of the accident and the insufficiency of the fracturing force to produce so unusual an injury.

Fracture through the base of the coracoid, including a part of the rim, answers much more completely to the conditions observed. In such an injury there would be crepitus, deeply seated but still sharp and bony in character. There would be displacement of the head of the humerus downwards and forwards accompanied by the bony fragment, for the fracture through the clavicle would permit a certain amount of relaxation of the coraco-clavicular ligaments, and they would therefore offer no resistance to a slight descent of the coracoid process along with the humerus. Under such circumstances, if the head of the humerus were restored to its position it would become displaced again as soon as the hold upon it were released. The movements of the arm as a whole would be less restricted than in any other form of dislocation at the joint or in any variety of fracture of the humerus.

All of this corresponds perfectly with the symptoms of the injury in the case here presented. I believe, therefore, that I am justified in concluding that the injury in this case was a fracture through the base of the coracoid process including a portion of the rim of the glenoid cavity and associated with complete fracture through the clavicle at its outer third. If I have fallen into any error in the diagnosis of this injury I shall be very glad to be corrected; if I am right, it is an injury which must be of somewhat infrequent occurrence and its unusual character must be my excuse for presenting it to your consideration to-day.

PENOLOGY.

BY N. E. BRILL, M. D.,
NEW YORK.

The subject of penology is one which, in one of its phases, should interest every medical man who lays any claim to progress, and whose interests lie in the direction of improving the human species. Medical men as a rule are so much confined to reflection on the purely physical subjects—diseases—which affect the race that they fail to direct their attention to a social disease whose influence in perverting and degrading the human species is as great as that of physical disease. The object of every physician should be to exercise all of his art and skill in increasing the standard of his race, in the one instance, by the prevention of physical and social disease, and, in the other, by the treatment of such evils when they already exist.

It is on this account that I am induced to present the subject of the treatment of crime and criminals, one of the phases of that vast and important subject of criminal anthropology.

It is of prime importance in the consideration of this subject to bear in mind that no treatment can be efficacious which looks upon the origin of criminality as a unity. It is absolutely necessary to discriminate between criminals who are such by nature of their environment, those who are such by force of circumstances, and those who are such by reason of a defective, perverted or absent moral sense. Only a treatment which shall have reference to each of these etiological factors can be rational and effective. It is

therefore logical to consider each of these divisions of criminality individually before any plan of treatment can be suggested.

It is needless to say that early environment plays an important part in the history of the future man. A child brought up in the slums, the offspring of a thief and a prostitute, surrounded by thieves, with no education, is certainly one not calculated to discriminate between higher phases of morality. The continual sight of crime in all its phases, of drunkenness and of vice, influences such a child's future as much as his ancestry. That such a one should become a criminal is not to be wondered at; rather would it be a matter of surprise if he did not.

Again, a man, out of work, denied the opportunity to earn his daily bread by healthful labor, with wife and children pleading for food which he is unable to supply, tortured by the cravings of hunger, and embittered by the selfishness of man, sees an opportunity to bring food to the famished and relieves the pangs of the distressed by a crime. Society is shocked; it must be protected, and the law prevails.

In the third place, an individual is born, his mother neurotic, or his father an epileptic, or one or both insane. The very nature of his birth brings him into the world perhaps with a brain upon which is stamped the impress of a perverted or defective development. Such a child, almost from infancy, shows a tendency towards the commission of crime, which, notwithstanding attempts at educational correction may be made, persists in a criminal course. He cannot be made to understand that his criminal actions are wrong. He may commit murder without purpose, or from an incontrollable passion of seeing suffering on the part of the victim; or his criminal acts may take the nature of committing theft, perhaps from members of his own family. To him is meted out the punishment which the law provides; only in cases of capital crimes does the law take his condition into account. In all other respects he is treated as are the criminals belonging to the other classes.

How should we take care then that these different classes of criminals may not injure society again? Will anything be gained by confining them altogether in the same institution? Let us see. The object of punishment should be only the protection by that means of society from the ravages of its enemies. Revenge should not enter as a factor. If protection to society could be brought about by any other means we have not the right to deprive a criminal of his liberty. In certain classes of criminals reform may certainly be brought about. By appealing to their emotions and by education much can be gained. The greatest number of the first class are amenable to this form of treatment and would make good members of society.

Certainly imprisonment as a punishment for the class who committed crime as the result of circumstances may be a questionable procedure. Its effects can hardly be called beneficial. Victor Hugo, in his *Les Miserables*, depicts this in vivid colors. The opportunity of earning an honest living, given to such individuals of this class, would result in more good than any penal institution could accomplish.

As medical men, the third class, or criminals who are such by nature of abnormality in organization, concern us more closely. For from them is culled the greatest number of habitual criminals. The commission of crime is to them a satisfaction to their abnormal craving appetite, just as the commission of good deeds is the satisfaction which a healthy mind enjoys. It is the mental food upon which they live, and cannot be given up by them.

The question of the responsibility of these individuals does not concern us. Inasmuch as they constitute a dangerous element, society has the right to guard itself against their criminal actions. The important question arises, how can this be carried out? Two factors enter into the consideration of this subject. One is the means by which their numbers may be held from increasing —the prevention of crime from this source; secondly, the means of disposing of those members of this class who have come under the hands of the law.

Should castration be practiced on males, spaying on females? Or should the law rather condemn the unmarried individuals to celibacy, and itself insure that this condition be carried out by imprisoning them, and thus keep the sexes apart? Should the married members of this class be separated, the physically healthy individual be granted a divorce from the criminal with the abnormal moral development, the latter to be imprisoned? These are questions which I leave the readers to answer as their reflection may lead them.

At a recent meeting of the Society of Medical Jurisprudence of New York, Dr.

B. F. Westbrook, of Brooklyn, in a paper entitled, "What shall we do with the habitual criminal?" suggested that the criminal of this class after the commission of three felonies should be imprisoned for life. This, although an extreme, is certainly a radical measure for the prevention of further crime. It, of course, can have no curative effect on such an individual, but it is questionable whether such an afflicted person can ever be cured. The incurably insane are incarcerated in asylums and remain there until death brings them liberty, hence I see no reason in the world why the criminal with similar or analogous abnormality should not be treated in the same way in a penal institution. I would add, though, that the latter should be put to profitable work there; first, that his family (if he have any) be kept from being a charge upon the county, and secondly, that he himself by his labor repay the State the expense of keeping him.

GUN-SHOT FRACTURES OF THE FEMUR.[1]

BY JOHN BROWNRIGG, M. D.,
COLUMBUS, MISS.

It would be out of place to review the authorities, or even the treatment of gun-shot fractures of the femur by leading surgeons, in this article. During our civil war the average shortening was two inches and thirty-one hundredths of an inch. Certainly better results should be obtained, and with appliances which can at all times be made in camps and farm-houses. I hope to be able to present such a plan, and trust that its simplicity and cheapness will be arguments in its favor. I will not now discuss the class of cases requiring amputation or those in which a more conservative course should be pursued, but will propose the use of more effectual treatment.

The appliances which I use can be well made for a dollar and eighty cents, exclusive of the small air pillow required to elevate the knee slightly; and this pillow will last during the treatment of many cases. With the knee slightly elevated the limb is in an easy position, and yet not so crooked as to lose any advantage, so far as extension and counter-extension are concerned, as compared with the straight position.

Dr. Gurdon Buck's extension is sufficient in all cases. I have used with his appliances a thin board about nine inches long, to go between Buck's thin block and the foot, to support the foot, and to keep the heel above the bed; also instead of a roller, a many-tailed bandage with the ends tied together over a strip of leather, in front of the leg, to retain the adhesive plaster securely applied. Coaptation is secured by wooden splints about three-fourths of an inch wide, rounded and smoothed next the skin. These splints should be kept at equal distances from each other by tacking tapes on their outside. Where two splints are near a wound, their edges should be cut out so as to avoid pressure on the wounds, and to allow the wounds to be washed without removing the splints. Strips of cloth should be tied around these splints. They sink into the flesh partly, and act on the bone better than a splint with an unbroken smooth surface. When it is necessary to dress the wounds, the air pillow should be inflated a little more, the strips of cloth removed from the splints except at their ends, a rubber cloth placed under the thigh, and the wounds bathed without relaxing the pressure of the splints.

When spiculæ of bone cause irritation, it is sometimes necessary to attach to the extending cord a twenty-five pound weight. This necessitates sufficient counter-extension. The want of this has been the principal cause of bad results. The perineal band has been relied on by many surgeons. This presses on a few inches of tender skin, and has been condemned by high authority. In the counter-extension appliance described below, the pressure is on about five hundred inches of tough skin and embraces in its grasp the bony framework of the chest.

It is composed of a jacket made of strong cotton cloth, to fit the form, from below the lower margin of the ribs, to near the axillæ. A plait on either side, about three inches long will make it fit very well. A piece of bootmaker's strap, or some substitute for it, should be sewed along both its edges to the jacket, just above the lower margin, on its outside; so that a buckle on one end of the strap will enable one to buckle the strap tightly around the waist, just below the margin of the ribs. Tapes are sewed to the edges of the jacket in front, about an inch apart, to lace it. This is better than a cord and eyelet holes, as the patient may loosen them when he wishes to do so, until he gets accustomed to the jacket.

[1] Read at the meeting of the Southern Surgical and Gynecological Association, Nashville, Nov. 12, 1889.

Straps of cotton cloth doubled, or other material about an inch wide, should be sewed to the upper edge of the jacket, one in front and one behind each shoulder, about half-way from the outside of the shoulder to the neck. They should be long enough to reach the posts at the head of the bed. They should be fastened at an elevation, and be wide enough apart to allow free motion of the head from side to side.

This jacket will afford any amount of counter-extension that may be required. Twenty-five pounds until the muscles become relaxed, then fifteen, and the last two weeks ten pounds will answer in powerful subjects, even when there is muscular spasm. The patient may complain at first, but if it is removed he will ask for it in a few hours. I have used it thirteen times in different cases of fractures of the femur, and in one case of gun-shot fracture, in which there was considerable comminution, without any shortening. The effectiveness of this jacket depends upon keeping the band at its lower margin buckled tight below the margin of the ribs, and if it stretches so as to slip up at first, it is necessary to loosen the jacket and its fastenings to the bed-posts, and to reapply it.

A patient with a fractured femur always tries to move his hips away from the injured side. This is prevented by a band around the hips, secured to a board at the side of the bed, resting on the floor, and the upper end about a foot higher than the bed, so that the band will be secured to it at an elevation. The extending cord, and counter-extending bands, being also secured at an elevation, the patient rests lightly on the bed, and bed sores are prevented.

It is not necessary to have a sectional mattress, as the patient can support himself on the foot of his well leg and his elbows, so that a bed-pan can be placed under him, without relaxing the extension or counter-extension, or interfering with coaptation, or bending the bone at the point of fracture. I was not convinced of this until after frequent, careful observations. These appliances can therefore be used with the patient lying on a bed sack filled with straw, on the ground in a tent, with two stakes driven in the ground near the head of his bed, and two forks at the foot, with a smooth round stick across the forks for a roller, over which the extending cord is placed. With a piece of cloth, a cord, an ordinary spool, or a round stick in two forks for a roller, a buckle and strap, a piece of moleskin or rubber adhesive plaster, and an air pillow or a good substitute for it, all these appliances can be made. Anything except an air pillow gets hard and interferes with the circulation, and requires constant watchfulness.

The opinion has prevailed that where there is much loss of bone with its periosteum, if too much hiatus is left between the ends of the broken bone, it will not unite. I am convinced that this is not the case. I have often observed in cases of that nature, where the wound was open so as to admit of it, that when bone and flesh were growing together, during the restorative process, the bone was always a little in advance of the flesh, and have seen four inches of bone restored in that way, the new bone growing from each broken end until the ends met.

If there is sufficient extension and counter-extension, fragments of bone which are left in the wound do not cause much irritation.

After the bone has united securely, it is best to place the limb on a double inclined plane, until the bone is strong enough for the patient to sit up and use crutches. These can be made anywhere with some boards, a few tacks and a piece of leather.

Four years of service in the field, and in hospitals for the wounded, and the results of treatment then witnessed, have awakened an interest in this subject, which has prompted me ever since to attempt to obtain the great wants—viz., efficient counter-extension and such efficient coaptation as will admit of proper attention to the wounds.

Of sixteen femurs which united after gun-shot fracture of the shaft, which are depicted in the *Medical and Surgical History of the War*, Part III, Surgical Volume; from preparations in the Army Medical Museum, eleven were shortened by overlapping of the broken ends. These silent witnesses admonish us to be prepared before another war.

Turpentine Oil Baths. — Turpentine baths for the treatment of rheumatism, etc., may be quickly prepared by shaking up 90 to 120 grams of oil of turpentine with a very strong solution of green soap, and mixing this emulsion thoroughly with warm water when the latter is poured into the bathing-vessel.

THE RELATION OF PLUMBING TO DISEASE.

BY T. R. CHAMBERS, M. D.,
NEWARK, N. J.

There is, to-day, perhaps, no question so intensely interesting to the profession and the layman as the causes of zymotic diseases. The epidemic now so seriously affecting our country is an infectious disease due to some microbe hitherto unknown. That typhoid fever, diphtheria and choleraic diseases are mostly, if not entirely, due to improper care of sewage is an established fact. Pure air, pure food and water, together with a sufficient exercise of mind and body, these combined make the highest conditions for happiness on this mundane sphere. As individuals we should have these things for ourselves and those dear to us. As members of a generous philanthropic body all doctors should be able to discover to the afflicted wherein the subtle cause of disease may be lurking.

One does not venture much, to say that by far the larger percentage of people are utterly regardless of the value of true pure air. If an ill-odor is noticed, the air is bad, they exclaim, whereas it may not be bad at all, except in disclosing to others that a person had been near griddle cakes while they were cooking and had carried the odor in his clothes. The most dangerous of gases have no odor or color. It has probably sickened more people than any other enemy of the human race—it is carbonic dioxide.

Sewer-gas is composed of atmospheric air mixed with the gases from decomposition of organic matters as found in sewers. It will be more or less in quantity as the sewage is sluggish or rapid in the pipes. With a rapid flow there is a minimum of gas formed. A flushed pipe has less opportunity to expose the sewage to air action than that allowing a slow stream. Each of the gases which enter into the composition of sewer-gas is not in itself poisonous when diluted, for they are frequently prepared in the laboratory and in the arts and the HS_4 has been recently largely employed as a cure for phthisis. It is the germs which are carried along by these gases which prove to be the dangerous elements. It is said they do not exist in rapidly moving sewage but only in standing fermenting sewage, where bubbles of gas are continually bursting and spreading the bacteria into the air above the liquid. Cases are on record where the overflow pipe from a cistern into a cesspool was the carrier of germs to the cistern, and those who drank the water suffered from typhoid fever. A small quantity of sewer-gas laden with these germs may cause considerable havoc while a large quantity of sewer-gas minus the germs may be comparatively innocuous. Just here is the stumbling-block which overthrows many who, living in a sparsely settled region, have been accustomed to see the waste, slops and what-not from the house allowed to take care of itself in a little open drain run off a variable distance from the house. Having seen the liquid excreta taken care of, or rather abandoned in this manner during their whole lives, they are with difficulty brought to believe that in a more closely settled town or city this waste must be zealously guarded and regarded. These germs seem to be as diffusible as the gas itself. They will find their way through brick walls, tainting milk and meat in short time.

It is true, people become accustomed to breathing contaminated air, but it is also true that it has a very deleterious effect upon those breathing it for any considerable time. It is estimated by competent authorities who have gathered the statistics that vitiated air in the houses of our citizens causes 40 per cent. of deaths annually.

Diarrhœas, dysentery, periodic fevers, headaches, have been traced to sewer-gas. Cholera and typhoid fever have been transmitted from house to house through the sewers. In children it causes vomiting, diarrhœa, gastric derangements and tonsilitis. The tendency is to affect the organs of primary assimilation rather than the lungs. In times of epidemic diseases, these diseases are apt to assume a severe type. It would not be surprising if *la grippe* shall take on typhoid and diarrhœal complications in towns and cities where the air or water, or both, are polluted. An intractable sore throat or diarrhœa has often been immediately cured by change of location of the patient.

One more point on this head. A person is more susceptible when in a quiescent state, as during sleep, hence the extra care that should be taken of sleeping apartments. The prevention of sewer-gas poisoning is of more importance than its cure.

The subject of this paper was to be the

relation of plumbing to disease; but if the plumbing is good there is no relationship; if it is defective, however, the one becomes the parent of the other. There are several things in the sewerage plant each of which is of the utmost importance in its place. As the strongest chain is no stronger than its weakest link, so if the plumbing be good in all but one particular, that one point may be sufficient to condemn the whole.

All drain and waste pipes should be properly caulked, ventilated, and placed with a sufficient fall to obtain a somewhat rapid flow of sewage. The traps should be properly placed so that they shall do what is intended of them. First, with regard to proper pipes and caulking. There are many grades of iron pipe in the market, some of which are quite as porous as tissue paper and a coat of tar which temporarily fills the minute holes is in a short time destroyed, and the sewage gas diffuses through the iron pipe at every pore to the detriment of all exposed to it. Never buy a tar-coated pipe. If you wish, have it coated with tar or painted after it has been tested. See that the caulking is well done.

I could cite many cases in which malaise, headache, tonsilitis, general debility, pale-faces, weak-knees have been caused by sewer-gas in ill-ventilated apartments. Sometimes the cold-air box to the furnace was fed from over sewage-polluted ground.

As to traps, there are many kinds of traps. Some of them most ingenious and most expensive. Some are simple, others not so simple. All are likely to get out of order, but the best beyond all odds is the ventilated S trap, or one built on the same principle. If these traps be properly vented and in daily use, with occasional cleaning, they are perfectly safe.

Suppose a soil pipe running from the cellar to a point several feet above the coping of the house. With this pipe are connected several basins, closet-bowls and sinks. Each fixture should be vented, but this vent should not re-enter the soil pipe below a point above the highest fixture, to avoid syphonage. It is an important point to remember that the sewer-gas does not necessarily come from the sewer in the street but from the pipes themselves.

In a house in this city (Newark) in a family of five, within the year 1888, I attended three cases of typhoid fever. All were severe, remaining in bed over four weeks. The first case was diagnosticated within the initial week as unmistakable typhoid and the cause sought for. A waste pipe was found to have a putty-joint reinforced with rags wrapped around it. The joint was leaking and the rags a filthy mass. This place was about 18 inches distant from a ledge on which milk and eatables were kept. The joint was lead caulked and other plumbing overhauled, and put in an apparently sanitary condition. Three months later a second case of typhoid occurred. The plumbing was reinspected and further leaks discovered, and now surely the plumbing was most carefully repaired. Hardly had the second case recovered when the third case broke out. The plumbing was in good order and the cause sought elsewhere. In the cellar, under a heap of coal, was found an opening directly into the street sewer. It had been originally intended as a drain from the cellar bottom. The bell-trap which was placed over the opening was found to have a saucer in which the bell should fit, and thus if water were present, make a seal against back draughts. The previous tenant not understanding the working of the trap had ingeniously filled the saucer with ashes and, there being no water in it, sewer-gas had free access to the house. The connection with the sewer was abolished and during the past year there have been no further cases of typhoid or other zymotic disease.

At another house it is now eighteen months since a case of typhoid ran its course and recovered. In the same house during the past three months, a second case broke out. Besides these the inmates complained of frequent headaches, attacks of malaise, and recurring malarial symptoms. Investigation showed in the laundry, adjoining the closet in which milk and edibles were kept, an imperfect brass connection between the lead waste from kitchen sink and the main soil pipe. There was also found a peculiar thing, which the landlord protested could not be the case. The half S trap under the kitchen sink had no vent, and at certain times, from some reason unexplainable, sewer-gas pushed its way through this trap into the kitchen. This condition of affairs was suspected a long time, but faith in the S trap was misplaced (the trap was not vented). The peppermint test, by the Board of Health revealed the whole matter.

In closing, a moral presents itself. It behooves every intelligent Board of Health to insist that the water test should be tried

in every new plumbing plant and in every reconstruction of old plants, and where defects occur they should be condemned and not allowed. If water stands in a system over night it is pretty sure no sewer-gas will be freed.

It behooves the medical profession collectively to see to it that the crying evil of defective drainage be overcome and individually to seek out and cause to be remedied one great evil which is not by any means a necessary concomitant of the luxuries of running water into the homes of the people.

PERISCOPE.

United Fracture of the Base of the Skull.

Dr. Samuel Gordon, at a recent meeting of the Royal Academy of Medicine in Ireland, exhibited a united fracture of the base of the skull involving the anterior and middle fossæ. The injury which caused the fracture was a fall from a car during an epileptic fit. The patient had long suffered from epilepsy, and had sustained many injuries by falling when seized with convulsions. Among these was a transverse fracture of the patella, which the President submitted to the Section in its last session in consequence of the exceptional derangement of the structures of the knee which it presented.

Having detailed the symptoms observed during the fatal illness, which resembled those of Jacksonian epilepsy, Dr. Gordon stated the grounds on which he had declined to interfere surgically with the patient. The *post-mortem* examination disclosed a united fracture of the frontal region radiating to the base along the middle line, and the changes observed in connection with it were clearly seen to have no causal relation to the epilepsy. This was verified by reference to the history of the case.

Referring to the details of the fracture, Dr. Gordon noted the great rarity of such specimens, quoting some of the few recorded examples in support of this view. This rarity of specimens, he stated, was due to the amount of force which is necessary to produce fractured base which inflicts great injury on the brain, and to the fact that almost all such fractures are compound either by external wound, or more frequently by opening the nasal and aural cavities, and are so specially prone to be complicated by inflammation.

Dr. Myles said the case was of extreme interest in connection with the diagnosis of internal lesions of the brain. Was it possible to diagnosticate epilepsy of the functional form, which was unconnected with organic lesions of the brain, from the so-called Jacksonian epilepsy? From an analysis of the present and several other cases he had observed, he concluded that localization of cerebral lesions by analysis of the external symptoms in question was practically an impossibility.

Mr. Franks said Dr. Myles appeared to be entirely sceptical on the subject of cerebral localization. In the case now before the Section the localizing symptoms were practically *nil.* All those who had had large experience of such cases were agreed that once the convulsions became general it did not matter whether the head turned to the right or the left, or the eyes towards the right or left; these signs gave no indication whatever as to the position of the lesion. The possibility of diagnosis wholly depended on the first symptom, or twitch; and it was often extremely difficult to find it.

Dr. Gordon, in reply, reminded Mr. Franks that the whole drift of his case was that the man had been epileptic for a great number of years, and that while he had accidentally got fractures and lesions, none of them had anything to do with the epilepsy. They did not know what caused the epilepsy. The man had albuminuria.—*Dublin Jour. of Med. Science*, Feb. 20, 1890.

Tuberculosis in Men and Animals.

At the last meeting of the Medical Society of the State of New York, Dr. E. F. Brush read a paper on the geographical distribution of tuberculous and dairy cattle. He thought that, if he could show by reputable authority that the geographical distribution of human tuberculosis was coincident with the distribution of bovines affected with this disease, the inference would be that they stood to each other in the relation of cause and effect. In studying the geographical distribution of pulmonary consumption, the necessity for separating important and indigenous cases in any table of statistics was absolute in order to reach any conclusion as to the habits of the people and their effects

with reference to this disease. Many other diseases were conveyed to the human race by animals. Of this no doubt existed; but in the case of tuberculosis the slow development of the disease was a disturbing factor in reaching conclusions. The danger of animals being infected by man was exceedingly small; the danger of man being infected by animals was practically the only danger, and even this could be avoided. He thought that the proposition for isolating human consumptives was leading us away from the chief danger. In lands like Egypt the indigenous inhabitants retained immunity while associating for long periods with consumptive immigrants, while in regions like Australia and the Sandwich Islands the inhabitants had become infected after the introduction of dairy cattle. The best dairy cattle breeds were the tubercular breeds, while some of the breeds not classed by the breeder as dairy cattle were exempt from tuberculosis owing to their vigor and health. In all dairy countries the prevalence of tubercular consumption was a settled fact, while the only countries at all in doubt were those where the dairy consisted of other than domestic cows. He spoke of the Chinese as a people who did not use milk, while the Tartars in that country were meat and milk consumers, and therefore the observations of medical men were very confusing. They confessed that they could not understand why the disease prevailed among the dominant Tartar class, but not among the poor Chinese, who, according to all preconceived notions, ought to be tubercular. In South America, where cattle were exceedingly numerous but the use of milk almost unknown, or it was used after being boiled only, the natives still enjoyed immunity. The speaker, taking a geographical square of ten degrees, embracing Spain and Morocco, contrasted the two countries. The climatic and other conditions were pretty nearly equal; but Morocco, where there were no European dairy cattle, was exempt from tuberculosis, while in Spain and Portugal, where dairying was carried on in the European style, tuberculosis prevailed. He thought that there was no great necessity for alarm, because the benefits conferred by the bovine race far outweighed the burden of the disease. If there was no way of remedying the disease, he would be in favor of letting affairs remain as they were. He expressed, however, a strong opinion that dairy and beef cattle could be bred in such a way as to eliminate tuberculosis, but this could only be done by increasing the price of both beef and milk—*N. Y. Med. Journal*, Feb. 15, 1890.

Olive Oil in Gallstone.

Dr. J. I. Skelly reports the following case in the *Weekly Med. Review*, Feb. 15, 1890:

"An old woman, 65 years old, who had had numerous attacks of hepatic colic, sent for me. I took with me a pint of the purest olive oil I could get. I found the lady undergoing all the agonies of gallstone colic, as her attending physician pronounced it. She had taken several hypodermic morphias but with no relief. She was immediately given olive oil, f. ℥viij. and f. ℥vj in two hours after.

"In about an hour after taking the last dose the bowels began to move, and at least a handful of gallstones passed during the afternoon and evening. None of them were larger than a filbert. She has never had any trouble since that I know of."

Insanity Proceeding from the Colon.

In an article on this subject in the *Alienist and Neurologist*, Jan., 1890, Dr. Harold N. Moyer states that the term "reflex," as applied to certain pathological conditions, has been so often misused and such erroneous conceptions have been formed under this all-embracing title that he confesses a dislike to the term, and only uses it in its most restricted sense. One has only to refer to the vast number of surgical procedures relegated to oblivion to emphasize the erroneous conceptions regarding the reflex nature of some nervous disorders, clitoridectomy, circumcision, even castration, and lastly oöphorectomy. The colon has thus far largely escaped, not through want of importance, but solely because no one seems to have devoted special consideration to the diseases of this organ.

The earliest writer to call attention to the colon as a reflex cause of insanity was Schroeder van der Kolk. It formed no mean division of his order of sympathetic insanities, only yielding in importance to the uterus and sexual parts. He regarded the trouble as a true reflex, an irritation beginning in the peripheral endings of the sympathetic nerves, propagated to the vasomotor supply of the central nervous system,

and their working disorder principally in the circulation. In these days of germs and ptomaines, a more acceptable theory to many will be that we have in these cases a true auto-infection ; an addition to the blood of noxious elements, which, circulating through the nervous system produce toxic effects. It is probable that both theories have an element of truth. In some cases there may be a direct poisoning of the blood, while in others the disorder may be purely reflex in character.

Van der Kolk was himself affected with this disorder. While suffering from constipation and fatigue from overwork, hallucinations and phantasms appeared to him and continued for three days ; a large clyster was administered, which was followed by a copious evacuation of foul-smelling fecal matter. Immediately the hallucinations disappeared and his mind became tranquil. There are no distinguishing symptoms of this condition but an intellectual disturbance which, having its origin in this source, is said by Van der Kolk to be characterized by a peculiar depression of spirit, by anguish of mind, and by the patient's self-accusations of wickedness and baseness. The disease has a very slow course and generally the mental anguish has existed some time before the physician is consulted.

Whatever view may be taken of the basic pathology of these conditions, there can be no doubt of their etiological relations, and additional emphasis is laid upon the necessity of thoroughly investigating possible sources of reflex irritations in all functional nerve disorders. Dr. Moyer gives the history of three typical cases of insanity which occurred in his own practice, and which were entirely relieved by large enemata. In each case enormous quantities of foul-smelling fecal matter were evacuated.

Regarding the treatment of this condition Dr. Moyer inclines to the view expressed by Van der Kolk, who says that all remedies which act as violent irritants of the colon, the so-called drastics, only increase the tendency to stricture ; they add to the sensibility of the colon and the accumulation of blood in it, and cause watery stools, while the hard masses in the upper portion of the large intestine still remain. The disquietude, the excitement, and the uneasy feeling of the patient are thereby increased, but the strength is diminished if these medicines are continued for any length of time ; the circulation becomes more and more irregular, the radial pulse becomes small, and the limbs cool.

In ordinary constipation, where there is simple atony of the bowels, laxatives may be indicated ; but where there is a true overfilling with distension of the pouches of the colon, cathartics are of little use, and may be positively injurious.

Thomsen's Disease.

Dr. C. H. Hughes, in the *Alienist and Neurologist*, Jan., 1890, describes the principal characteristics of Thomsen's Disease, or Neuro-myotonia, as follows :

1. Invariable association of tonic spasm with attempted voluntary motion and general freedom from sphincter involvement.

2. Yielding of the spasmodic resistance to repeated and persistent volitions.

3. Recurrence of the spasmodic conditions after a period of voluntary rest, and a renewal of the voluntary effort.

4. Absence of pain associated with muscular spasm.

5. Preservation of the general muscular integrity—no marked loss of power under the will or electricity.

6. Extension of the spasm, when once excited, to all the muscles brought into action and under great mental emotion, sometimes a tendency to become quite general. Diffusive spasm volitionally excited and volitionally but tardily overcome.

To sum up : Consciousness, volition exciting the spasm, painlessness in the cramped muscles, muscular integrity, and the spasms overcome by persistent volitions, gives us the clinical picture of myotonia or Morbus Thomsenii so clearly, that with or without electrical reaction, with or without muscular hypertropy, with or without the spreading spasm, with or without the harpoon and its revelations, we ought to see it plainly.

Application for Tonsilitis.

Rosseau gives the following, which the *National Druggist*, Feb. 15, 1890, claims to be excellent :

℞ Sodium biborate	2 parts
Potassium chlorate	2 parts
Strained honey	4 parts
Glycerine	8 parts

Mix and rub thoroughly. To be applied directly to the seat of inflammation, by means of a swab, from eight to ten times daily.

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The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

GRIPPE OR EPIDEMIC INFLUENZA.

Influenza, or epidemic catarrhal fever, is by no means a new disease, though most of the medical men who have been graduated in the last ten years have seen nothing of it. From the ninth and tenth centuries of the Christian era references to a disease more or less resembling influenza begin and multiply, and from that time to the present the literature of the subject has grown steadily. One of the most remarkable epidemics of which we have records is that which started in China in 1830, and swept rapidly over Asia, Europe and America, lingering here and there, and breaking out afresh in places, until 1833. Since that time there have been a number of less wide-spread epidemics, including that occurring in the United States, in 1879, of which Da Costa gave an excellent account in the MED. AND SURG. REPORTER, of March 8, 1879. The present epidemic, which has just swept the world from east to west, has excited universal attention, and sufficient time has at length elapsed in the countries earlier affected to enable clinicians and pathologists to record their observations, and for the REPORTER to present to its readers some views in regard to it founded upon actual observation and not upon mere hypothesis. The general type of the disease has been severe, but as usual there have been all grades, from the very mildest, scarcely amounting to indisposition, to the very gravest, endangering and precipitating, if not actually causing death. The poison has a marked predilection for the mucous membranes; in most cases it is the mucous membranes of the respiratory tract that suffer, in other cases those of the gastro-intestinal tract. In the former case the prominent symptoms are coryza and bronchitis, with pneumonia, generally catarrhal, as a complication; in the latter, repeated vomiting with diarrhœa. In addition to these symptoms almost every well-marked case is attended with symptoms indicating the action of a systemic poison—chill, headache, fever, muscular pains, great depression of physical and mental strength and energy, and a slow convalescence, attended with great muscular weakness.

One of the most interesting questions concerning influenza is that of its causation. Notwithstanding the fact that the disease has been known for hundreds of years, this question remains unsettled. The poison cannot be dependent upon local surroundings or upon climatic conditions; for Siberia and Italy have alike suffered, and so have Canada and the southern portions of the United States. The rapidity with which the disease spreads indicates that the poison is such as can be transmitted by the air; while its pandemic character, the uniformity of the symptoms produced by it, and the evident constitutional involvement, all entitle influenza to rank among the specific diseases.

As was to be expected, bacteriologists

have searched for a vital cause for influenza. In the *Deutsche med. Wochenschrift*, Jan. 23, 1890, Prof. Ribbert modestly records the results of his bacteriological studies of the bodies of eight persons who had died of the disease in question. In five of the cases the only characteristic micro-organism found was the streptococcus pyogenes, otherwise called the streptococcus of erysipelas. This was especially abundant in the sputum. It is not impossible that this organism may undergo a wonderful development and be carried by the atmosphere broadcast over the world. Nor can it be denied that its presence, if accompanied by the development of a chemical poison, such as bacteria produce, might perhaps account for the symptoms of the disease. But the probability is that influenza simply leaves behind it a soil suitable for the development of the streptrococcus, and that if it be a germ disease, the specific germ is peculiar to it alone. It is interesting in this connection, as supporting the probable association of the streptococcus of erysipelas with the later stages of the disease, to note that in Philadelphia a number of severe cases of facial erysipelas have followed close upon the heels of an attack of influenza.

Of almost equal interest with the question of causation is that of contagion. To a certain extent the decision of the latter will depend upon the view held of the former. If influenza is a specific disease, due to a poison peculiar to it alone, then it is probably contagious also. It has no doubt occurred in the experience of very many physicians to see one after another member of a family contract influenza within twenty-four or forty-eight hours after the first case has appeared in the family; and generally those first to suffer are the ones in closest association with the sick one. Still, it must be admitted that experience on this point has not been uniform. Moreover, it can be urged with much reason that it is at least unnecessary to invoke the agency of personal contact to explain the development of a fresh case of the disease in a family when the whole atmosphere is full of the poison. A clearer case of contagion seems to be made out by Dr. Danguy, in a communication to *La Sémaine Médicale*. The original paper is not at hand, but it is referred to by Dr. S. Guttmann in a discussion on influenza which took place before the Berlin Medical Society (*Deutsche med. Wochenschrift*, Jan. 23, 1890). According to the statement of Dr. Danguy, there was in the harbor of Brest the school-ship "La Bretagne," with eight hundred and fifty men on board, of whom two hundred and forty-four have been sick with influenza since December 14. In the same harbor were two other school-ships, with an equal number of men; in neither of these, however, has there been a single case of influenza. In regard to the outbreak on the Bretagne, it appears that an officer belonging to this ship returned from Paris to Brest with some goods which he unpacked in person. Three days after the unpacking he was seized with influenza while still in Brest, and on the following day his wife was attacked, and on the day afterward three servants. The officer was attacked on Dec. 11; on Dec. 14, before he was entirely well, he went to the ship; on Dec. 16, the second case on the ship developed, and from that time spread more and more. The officers who were sick and went to their homes in Brest, without exception spread the disease in their families.

If the facts are as stated by Danguy there would appear to be no longer doubt that influenza is a contagious disease; for the climatic conditions were certainly, as far as we can judge, as favorable for the development of the disease in each of the two ships that escaped it in the harbor of Brest, as in "La Bretagne," in which there were two hundred and forty-four cases.

Regarding the prognosis of the disease a great deal might be said; but a little must suffice here. In healthy persons who are careful to avoid exposure during the period

of convalescence—when there is great liability to the development of pneumonia—the prognosis is good. In persons with weak hearts, and especially with phthisis, the prognosis is grave. In some of our large hospitals the advent of influenza was most alarmingly fatal to a large number of patients with phthisis. In view of this fact the statement of Germain Sée (*Gazette Hebdomadaire*, Dec. 27, 1889), that influenza is observed only altogether exceptionally in the tuberculous, is incomprehensible. On the other hand, it is somewhat remarkable that, in the present epidemic, children have escaped altogether, or have been affected lightly.

A word may be added concerning the rarer complications of the disease. Among these may be mentioned acute inflammation of the middle ear, meningitis, and a peculiar form of inflammation of the cornea known as dendritic keratitis. Of the latter Hirschberger reports two cases, in the *Münchener med. Wochenschrift*, Jan. 28, 1890, and he refers to several seen by Prof. Fuchs in Vienna. Hirschberger's paper is made additionally valuable by reason of the admirable illustrations which accompany it.

In conclusion, it may be stated that while our knowledge of influenza is still very inadequate, what we do know of it warrants the belief that it is a specific, contagious, epidemic catarrhal fever, due to a special poison which is carried by the atmosphere.

IMPROVEMENT IN MEDICAL EDUCATION.

During the summer of 1889 a petition was prepared by some medical men in Baltimore, asking the Faculties of the five medical schools in that city to meet in conference for the discussion of reforms in medical education. This paper was signed by ninety-six physicians representing the hospitals, societies, colleges, state and city offices, and private practitioners. In accordance with its request, meetings were held in January and February, 1890, at which there were representatives from the Johns Hopkins Hospital and from all the five medical colleges of Baltimore, except the University of Maryland, which last, having recently adopted the proposed reforms, declined to enter the conference on the ground that such action was not now necessary on its part. The staff of the Johns Hopkins Hospital (represented by Professor Osler and Dr. Hurd) took great interest in the movement and expressed great sympathy with it. Although the Woman's Medical College has already adopted a standard beyond that contemplated, it entered the conference from like disinterested motives. The result was that the College of Physicians and Surgeons brought in a proposition to make the movement National, by calling a meeting of College Faculties during the meeting of the American Medical Association at Nashville, in May next. This proposition met with favor and the circular will be printed and sent to all the colleges.

It was argued at Baltimore that it would be suicidal for the colleges of that city to adopt reforms without some general consent, and that such a course would not really promote the cause of medical education in this country, and it was decided to attempt to secure some uniform and unanimous action by requesting all the medical schools of the country to send delegates to Nashville, and to instruct them to vote for the adoption of a three years' course and six months' sessions; a graded curriculum; written and oral examinations; a preliminary examination in English; compulsory laboratory instruction in chemistry, histology and pathology—these being considered the minimum of requirements demanded for a fit medical education.

In taking the lead in this movement, the Baltimore physicians do not arrogate to themselves any pre-eminence in the matter, and modestly suggest that it may be that the sense of their deficiences impels them to take to some action in the direction of a higher standard of medical education.

They feel a natural desire to enlist the interest of the physicians in other cities in the movement which they have started and hope for sympathy and assistance in the attempt to make it successful.

It need hardly be stated that no movement of this kind could fail to enlist the hearty support of the MEDICAL AND SURGICAL REPORTER, and we gladly call the attention of the readers of this journal to what their brethren in Baltimore are undertaking, in the full expectation that their effort will be warmly supported by all who have an interest in elevating the standard of the medical profession in the United States. Our readers will, of course, remember that an attempt of this sort was made a few years ago but ended in collapse. This, however, should not discourage those who are interested in this one, for almost all reforms have had to endure repeated disappointments before they were fully established.

TREATMENT OF RETROFLEXION OF THE UTERUS.

Attention has been called, during the past year, in the Editorial columns of the REPORTER, to the operations of Alexander, of Schücking, of Wylie, and of Olshausen-Kelly, for the cure of retroflexion of the uterus.

The operations of Alexander and Schücking are done without opening the abdomen; for the other operations preliminary laparotomy is necessary. Wylie's operation is done by separating pelvic adhesions, especially of the uterus and uterine appendages, then seizing one round ligament, removing its peritoneal coat so as to make a raw surface, doubling it on itself, and securing it with sutures; after which the other round ligament is shortened in the same manner. The method originated by Olshausen, in Germany, and Kelly, in America, known as hysterorrhaphy, consists in separating pelvic adhesions, and suturing the fundus, or, preferably, the ovarian ligaments, to the anterior abdominal wall. This operation has been quite extensively practiced in Germany and this country.

Dr. A. P. Dudley has devised a new operation for the cure of retroflexion by shortening the proximal ends of the round ligaments. Other methods of treatment failing, he opened the abdomen, broke up the adhesions of the tubes and ovaries, lifted the uterus, dissected the peritoneum from its anterior surface down to near the vesico-uterine cul-de-sac, freshened the round ligaments from their uterine connection for a certain distance outward, and attached them by fifteen catgut sutures to the freshened anterior surface of the uterus down to about the junction of the middle with the lower third. The organ was thus retained perpendicular to the axis of the pelvis, or slightly anteverted. When the case was reported, the uterus still retained this position, but it was too soon to know the final result.

This operation is certainly an ingenious one, and its true value must be determined by its results. Upon theoretical grounds it does not appear to be an improvement upon hysterorrhaphy—especially when the method of suturing the ovarian ligament to the anterior abdominal wall is adopted. It is certainly more difficult to do, produces greater traumatism and subsequent effusion, and has the disadvantage of leaving many sutures in the peritoneal cavity. Moreover, by attaching the ligaments to the anterior surface of the uterus "down to about the junction of the middle with the lower third," they no longer draw upon the fundus to tilt it forward and antevert the uterus, but rather upon the body, and thus antepose the organ. Suturing the ovarian ligaments to the anterior abdominal wall, eventually forms an elastic suspensory ligament of peritoneum which holds the uterus in anteflexion, at the same time elevating the ovaries. The further progress of the operative treatment of retroflexion will be awaited with interest. In the meantime the activity of surgeons in seeking for satisfactory methods of treatment promises a satisfactory solution of the problem.

Book Reviews.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the Reporter.]

ESSAY ON MEDICAL PNEUMATOLOGY: A PHYSIOLOGICAL, CLINICAL AND THERAPEUTIC INVESTIGATION OF THE GASES. By J. M. Demarquay, Surgeon to the Municipal Hospital, Paris, etc. Translated, with notes, additions and omissions, by Samuel S. Wallian, A. M., M. D., member of the American Medical Association, etc. Illustrated with fine wood-engravings. 8vo, pp. xvi, 300. Philadelphia and London: F. A. Davis. 1889. Price, $2.50.

Demarquay's work was reported to the Academy of Medicine, of Paris, and published in 1866. The American translator has reproduced the most practical portions of the book, especially the parts treating of the pneumatoses and the chapters on oxygen; but he has omitted the part devoted to emphysema and the chapters devoted to therapeutic experiments with carbolic acid, and has also condensed the reports of illustrative cases.

The first chapter of this abbreviated form of Demarquay's work is taken up with a study of the gases of the blood in their physiological condition. In the second chapter interesting information is given of the medical history of oxygen from the time of Priestley and his predecessors to our own time, and the physiological action of oxygen is considered. The third chapter is devoted to the preparation and administration of oxygen, and the fourth to its therapeutic action. In the fifth chapter the author considers nitrogen and hydrogen. The final chapter is taken up with the translator's notes, comments and additions.

In the chapter on the therapeutic action of oxygen, a number of cases are given illustrating the action of the gas in asthma, anemia, phthisis and general debility. Its application to the treatment of surgical affections also receives attention.

The increased study given to the treatment of various constitutional and local diseases with oxygen makes the appearance of Demarquay's book in a form accessible to English readers both welcome and timely. It is a pleasure to say that the translator, both by judicious pruning and condensation of the original, and also by his helpful comments and additions, has done a real service to his readers. Those who are interested in the therapeutic use of oxygen, and their number is constantly increasing, will find much useful information in the present book.

TRANSACTIONS OF THE GYNECOLOGICAL SOCIETY, OF BOSTON. New Series. Vol. I. 8vo, pp. 396. Boston: Cupples & Hurd. 1889.

This very attractive volume does credit to the Boston Gynecological Society. It is bound in mauve-colored cloth, and printed on good, heavy paper. Altogether it is pleasing to the eye of the lover of books. The thirty essays, together with discussions, are in general of a high order of excellence and well repay reading.

Among the more noteworthy papers is one by J. E. Kelly, of New York, on the Ethics of Abortion. The writer sets forth the view that abortion is criminal under all circumstances. This theory will not gain acceptance with the general profession any more than it did with the Society. The prevailing opinion that abortion is justifiable where the life of the mother is greatly endangered or her death is absolutely assured by the continuance of pregnancy, is not likely to be given up because of the construction that such an abortion is homicide. It is a practical fact that it is better to save one life than to see two lost. At the same time, all conscientious men will be glad when the profession and the public will demand that abortion be only done after consultation by two or more medical men of established reputation. The gravest emergency should scarcely excuse a single practitioner from destroying an unborn human being.

The elaborate essays by Cushing on the "Relations of Certain Bacteria to Puerperal Inflammations," by Marcy on "The Perineum," by Warren on "The Diagnosis and Treatment of Cancer of the Breast," and by Betts on "The Dress of Women," make the volume a substantial scientific publication.

By a singular coincidence the last two essays are strangely out of touch with modern medicine. The first is entitled "Errors and Misapprehensions," by Henry M. Field. The first error considered is the use of the speculum. In its place the writer uses a "shielded applicator." More frequently than the applicator Dr. Field has used the Simpson sound. This he always uses when the patient is at home in bed. It is to him an essential weapon of diagnosis, and nothing can take its place. Conjoined palpation he considers tedious, trying and painful to the patient. Surely nothing more remarkable than this has appeared in literature for many years! Conjoined palpation and the speculum are the very foundation of modern practice. Such conditions as diseased appendages, pyo-salpinx, and small, pelvic tumors can hardly interest the writer. He considers that the sound should be clean, but passes it with a clear conscience through dirty vaginal secretions. The only modern teaching in the paper is that applications should only rarely be made within the uterus.

Dr. McDonald contributes the final paper, in which he opposes the extension of obstetrical antisepsis to private practice.

Literary Notes.

—Professor Boyesen's novellette in the March *Cosmopolitan*, "A Candidate for Divorce," has many realistic scenes from a young ladies' boarding school, and aims to show the evil result of the prevailing methods of education for girls. Two timely articles are "Easter in Jerusalem," by Frank G. Carpenter, and "Browning's Place in Literature," by the well-known Browning lecturer, Emily Shaw Forman. Captain Daniel Morgan Taylor furnishes an interesting article on "The Militia," illustrated by Harry Ogden, and Col. Charles Chaillé-Long gives a remarkable description of "The Desert" with several striking engravings.

The bolo flower, discovered by Dr. Schadenberg growing upon a volcano mountain in one of the Philippine Islands, is perhaps the largest flower in existence, being as large as a carriage-wheel, or, to be more precise, about three feet in diameter and twenty-two pounds in weight. The proper name of the plant is *Rafflesia Schadenbergia*. The flower has five oval and creamy-white petals, which grow around a centre filled with countless long violet-hued stamens.

Notes and Comments.

Chloralamide as a Hypnotic.

Mr. George P. Cope, in the *Dublin Journal of Med. Science*, February, 1890, describes his experience with chloralamide, and says: I think these cases demonstrate that chloralamide is undoubtedly a sleep-producing agent, that the sleep created varies from five to eight hours, and appears to be sound and refreshing. A dose of 25 to 35 grains was sufficient to cause sleep in patients suffering from melancholia and chronic mania, but in cases of acute mania small doses had no effect, and sleep was not produced by less than from 40 to 50 grains. No recognized evil effects followed the continued use of this drug for eight days; and only one out of twenty-five persons under treatment with chloralamide was noticed to be suffering from gastric disturbances—viz., giddiness and sickness, with dry, brown tongue, which followed six hours after a draught, when no sleep ensued.

In comparison with other hypnotics, chloralamide, as it consists of a combination of chloral, somewhat resembles it in its action. Both induce sleep, lasting from five to eight hours, but they appear to possess little analgesic influence unless when they cause sleep. Unlike opium they will not relieve pain. The time that elapses before sleep is produced varies from thirty minutes to an hour, and the sleep appears to be natural and refreshing. Its action on the circulation is stated to be quite the opposite of that of chloral hydrate, which acts directly upon the blood pressure, slowing the pulse and respiration, and producing poisonous effects, by direct action on the cardiac ganglia and respiratory centre, causing paralysis of the heart and cessation of respiration. Chloralamide appears, as far as I have been able to ascertain, to be free from such danger. In five cases—one of pneumonia, one of phthisis, one of cardiac disease, and two of insomnia—I obtained sphygmographic tracings before and after its administration, and the blood pressure was not lowered in any of them, while the respiration and temperature remained the same. Dr. Daniel Leech (*British Medical Journal*, November 2, 1889), writing about chloralamide, states that "it seems probable that the formamide element, containing as it does a substitute NH group, will stimulate the circulatory and respiratory centres in the medulla, thus tending to counteract the depressing influence of chloral on them." Reichmann noticed that with doses ranging from 30 to 60 grains the blood pressure was not lowered.

Comparing chloralamide with sulphonal, which has been extensively used in the Richmond District Lunatic Asylum, with very satisfactory results, for the last year and a half, I need not dwell upon the advantages of the latter as a hypnotic agent, because I have practically nothing to add to the observations made by Dr. Conolly Norman (see *Dublin Journal of Medical Science*, January, 1889), and fully confirmed by further experience. Speaking of sulphonal, Dr. Norman states that "its disadvantages are (1) that it is bulky and practically insoluble, therefore difficult to administer, and that, perhaps, owing to its insolubility, (2) it is slow in action," and its price is high. Chloralamide, on the contrary, is not bulky, is tolerably soluble, quick in action (thirty minutes to one hour), and is now cheaper than sulphonal has ever yet become.

On the whole it seems that this new hypnotic is well worthy of a trial, having proved so far safe and reliable.

Paralysis of Serratus Magnus.

In the *Journal of Nervous and Mental Disease*, Feb., 1890, Dr. Ross R. Bunting reports a case of a very unusual form of paralysis, namely, of the serratus magnus. The patient was a man, aged twenty-four, white, married, who presented himself Sept. 16, 1889, at Philadelphia Polyclinic Service of Dr. Chas. K. Mills. On June 7, 1889, he noticed he could only raise his right arm half-way to the shoulder. He had some pain in the shoulder at the time, which continued at intervals for two weeks, not only when he attempted to raise his arm, but when it was perfectly quiet. When seen he had very slight wasting of the muscles of the right shoulder as compared with the left. When the arm was at rest there was not much deformity.

The lower point of the left shoulder was lower than that of the right; the lower angle of the right scapula was somewhat nearer the spine than that of the left. With the right arm elevated the scapula was raised up and projected behind in a wing-like manner; the inferior angle went backward toward the spine, the external angle upward

and forward. He could not thrust the scapula forward, as in the left, or well, side. He could raise his arm only half-way to the shoulder.

The serratus is especially required in the act of elevating the arms above a horizontal level, as it then draws the lower angle of the scapula outward and turns the glenoid cavity of the joint upward. It is by this act alone, and not by the contraction of the deltoid, that we are enabled to lift the arm above the shoulder. When the serratus is paralyzed, the inner border of the scapula, and particularly its lower angle, instead of lying against the chest, stands up like a wing, drawing up a three-cornered fold of skin before it and admitting of our reaching deeply into the subscapular fossa. The antagonistic muscles, the trapezius and levator scapulæ, have drawn the superior angle upward, and the weight of the arm and the pectoralis minor have depressed the external angle and thrown it forward.

Bacterial Studies on the Influenza and its Complicating Pneumonia.

Dr. T. Mitchell Prudden, in an article on the present epidemic, in the *New York Medical Record*, February 15, 1890, says there are so many features which the disease called familiarly *la grippe* shares with the more common and more completely studied acute infectious diseases that medical men have pretty generally agreed in classing it with these, in spite of its marked peculiarities and the wide variation in its manifestations. Furthermore, so much positive knowledge has been recently accumulated regarding the etiology of many of the acute infectious diseases that the assumption that the epidemic influenza is probably caused by some kind of micro-organism seems fairly justifiable on the ground of its clinical manifestations alone.

We have, as yet, no positive knowledge whatsoever as to the exact nature of the assumed micro-organism. By the aid of the new technique for the study of micro-organisms no investigations have yet been made on this subject whose results have been formulated and published.

Now it so happens that nearly all of the acute infectious diseases whose etiology has been satisfactorily established on a basis of actual observation and experiment have been proved to be caused by bacteria; that is to say, by micro-organisms which belong to a particular class or group.

There seems to be, both in the clinical manifestations and in the mode of spread of *la grippe*, much to suggest, not, indeed, that in its etiology it may be allied to malaria, but that it may stand related in its etiology to the better known acute infectious diseases much as malaria does—that is, may be due to a micro-organism, but to one of an entirely different class. The *plasmodium malariæ* belongs not among the bacteria or their close allies at all, but among an entirely different group of living beings. We might apparently have gone on trying to make something grow out of malarial blood upon our nutrient gelatine and agar, etc., indefinitely, if the constant presence of the disease with us had not permitted such morphological studies as have led to fairly definite notions as to its etiology, without recourse to the more subtle culture methods.

Whatever the truth of the matter may be concerning the assumed germ of epidemic influenza, it is evident that studies with the current bacteriological technique should not be neglected until they are proven to be useless, or some better method of observation is made known. For even negative results may throw a side light on this or closely allied problems.

The results of Dr. Prudden's studies may be summed up in a very few words. In two of the three cases of influenza associated with bronchitis a very large number of streptococcus pyogenes were found; this was the prevailing species. All the rest were scattering forms, commonly found in the sputum in bronchitis, most of them the ordinary aërial bacteria. In another case of bronchitis large numbers of the diplococcus pneumoniæ of Fraenkel and Weichselbaum were found associated with a few staphylococcus pyogenes aureus, and several scattering forms.

In the secretion from the nose in one case with coryza were a few of the staphylococcus pyogenes aureus, while all the rest, which were not numerous, were scattering forms.

Pneumonia has been a frequent, and in many cases a serious complication in our recent epidemic. Dr. Prudden has examined by the culture methods the sputum from five cases suffering from a prolonged and irregular pneumonia immediately following the influenza attack, all hospital cases; also the irregularly hepatized lung from a fatal case of pneumonia following influenza, and six

cases of pneumonia following influenza in all.

If now we sum up the whole series of Dr. Prudden's examinations we find that in the secretions from seven cases of simple influenza no special new forms of bacteria were discovered which there is reason to believe have anything to do with causing the disease. The only pathogenic species which were found were the well-known pyogenic bacteria, staphylococcus pyogenes aureus, streptococcus pyogenes (in four of the cases), and the diplococcus pneumoniæ (in one of the cases). In the pneumonia following the influenza (six cases) no special new forms of bacteria were found, but the same pyogenic forms (in five of the cases) and the diplococcus pneumoniæ (five cases).

Thus while we gain no positive new light on the etiology of epidemic influenza in this series of examinations, we are able, from the results of the studies on the pneumonia which accompanies it, to establish the probability that the pneumonia, although apt to be irregular in its course and atypical in its morphology, is usually due to the same bacterial agency as is at work in the ordinary acute lobar pneumonia. . How much this may be further complicated by the frequent presence of the pyogenic bacteria is a question which must be settled by further studies on the general relationship of these organisms to inflammations of the respiratory organs and to other mucous membranes.

It would seem, furthermore, that the relationship of the influenza to the pneumonia is that of a predisposing factor only—a conclusion, indeed, toward which clinical investigators have been already led by a different line of observations.

The phase of pneumonia which this epidemic has brought into prominence, is instructive in its relationship to the ordinary typical acute lobar pneumonia. It seems pretty well established that the diplococcus pneumoniæ of Fraenkel and Weichselbaum is the most common, if not the exclusive, primary etiological factor in acute lobar pneumonia, judging from its constant occurrence in the affected regions, from its pathogenic effects upon animals in experimental inoculation, and from its frequent occurrence in complicating lesions.

The very frequent occurrence of this micro-organism in the saliva of healthy persons not only does not militate against its etiological importance, but furnishes a most satisfactory rationale of the occurrence of the disease. For under ordinary conditions the diplococcus pneumoniæ appears to be quite harmless in the saliva. It is only when the suitable predisposing conditions—which we recognize in injuries, and in exposure to cold and wet, but which in many cases we do not understand at all—are fulfilled, that the growth of the germ in the lungs and its accompanying lesions can occur.

It would seem that the influenza, with its tendency to an involvement of the respiratory passages, furnishes, not indeed the common, but an analogous predisposing condition leading to an atypical pneumonia. This form of predisposition to pneumonia seems to be, in many respects, similar to that which measles furnishes in children to the incursions of varying forms of pulmonary inflammation whose determining etiological factors have not yet been sufficiently studied.

It may be remarked in conclusion that to the negative results of these studies on the influenza only such importance should be attached as the small number of cases examined will justify. We simply learn that in these few cases the use of the culture methods and media commonly employed in the study of bacteria and allied forms of micro-organisms has brought to light no living germs which there is reason to believe has anything to do with causing the disease.

But this negative result should leave us entirely unprejudiced toward any other series of observations which, with more abundant material and a more refined or favorably applied technique may promise a solution of the problem.

Aneurism of a Branch of the Basilar Artery.

A case of aneurism of a branch of the basilar artery is reported in the *Glasgow Med. Journal*, Feb., 1890, by Dr. Samuel J. Moore, and is especially interesting on account of the rarity of aneurism of the basilar artery. J. M., a blacksmith, aged 45, married, and the father of a healthy family, was found dead at the foot of the stair leading to his lodgings. He was a healthy, temperate man, and his wife said she had never known of his consulting a doctor, and she never heard him complain of illness, except sometimes of a cold in winter. He had about a mile to walk to and from his work, and about an hour after he should have arrived home a neighbor told his wife that her husband was in a half-sitting posture

at the foot of the stair, and that she could not rouse him. From the history it appeared as if he had fallen gently when beginning to ascend the stair, for the body was found in a reclining position, with the head leaning against the wall. Dr. Moore conducted a *post-mortem* examination of the body, which was that of a robust man, and no mark of violence could be detected on it. Blood was found extravasated into the left lobe of the cerebellum, and down under the membrane over the medulla, in considerable quantity. When the blood was carefully washed away, a small ruptured aneurism, not much more than twice the thickness of the artery of which it formed part, was discovered in a branch of the basilar artery. The heart and all the organs of the body appeared to be in a healthy condition, except that some small atheromatous patches were observed on the arch of the aorta and in the small arteries on the base of the brain, one of which had evidently produced the small aneurism that caused death.

The Progress of Cremation in England.

The Med. Press and Circular, Jan. 27, 1890, states that there are everywhere in England signs that public sentiment against cremation is diminishing in that country. Among other things in this regard it may be noted that the Manchester Cremation Society has just accepted the offer of one of its members—a civil engineer—to visit at his own expense and report upon to the Council the whole of the more important crematoria on the Continent. Such report should be not only interesting, but highly useful. It would seem that the furnaces in use are not of the most satisfactory description, and that there is still room for improvement in this regard. This is a subject to which engineers may well give their studied attention.

The Epidemic of Grippe or Influenza.

The German and Prussian Ministries have ordered a thorough inquiry into the recent epidemic. The investigations instituted by the Berlin physicians promise great success, as they are being carried on upon a very extensive scale, and are, in fact, of an international character. In Italy, the epidemic, though mild in form, is spreading rapidly, and the Communal Council of Rome has made a grant of 50,000 francs for preparing a lazzaretto in some unoccupied school buildings, owing to the fact that the hospitals are now crowded. There are a good many cases at Alexandria, and though the malady is of a mild form, it seems to have affected the death-rate, which in Cairo is 56 and in Alexandria 48 per 1,000, as against 43 and 41 respectively in January last year. The rise is mainly due to diseases of the respiratory organs. Intelligence from Mexico reports that the malady is increasing in that country. In some cases it is followed by pleurisy, and many deaths are attributed to it.—*London Med. Recorder*, Jan. 20, 1890.

Simple Steam Bath.

In an Edinburgh professional journal a simple and ingenious contrivance is mentioned, to admit of the continuous inhalation of steam fumes by patients suffering from diphtheria. This is nothing more than the fixing of an open umbrella to the bed, or suspending it from the ceiling, and throwing over this a large sheet, which, falling in a tent about the patient, will surround him with the atmosphere of steam. The steam is supplied by a pipe connection with a kettle or other boiling contrivance that passes beneath the tent. The suggestion is so admirable and feasible that we are sure it will be welcomed by many physicians, who are sometimes at a loss, in the absence of especially devised contrivances, to know how to effect with simple means the end desired in such cases.—*Babyhood*, Feb., 1890.

A Curious Mental Trait.

A correspondent of the German Anthropological Society tells of his meeting a farmer by the name of Löwendorf, who had a peculiar habit of writing "Austug" for "August," his Christian name. Some years later he was inspecting a school, and heard a little girl read "leneb" for "leben," "naled" for "nadel," and the like. Upon inquiring, we found that her name was Löwendorf, and that she was the daughter of his former friend the farmer, now dead. This defect was noticeable in the speech and writing of both father and daughter. It appeared in the father as the result of a fall that occurred some time before the birth of his daughter.—*Science*, Feb. 14, 1890.

Thymol Dentifrice.

The following formula is given by the *Chemist and Druggist:*

Precipitated chalk	15 ozs.
Soap, powdered	1 oz.
Saccharin	10 grs.
Thymol	15 grs.
Camphor	30 grs.
Vanillin	5 grs.
Oil of rose	6 drops.

Rub the camphor and thymol together in a mortar, and warm gently so as to render the mixture liquid; then add the chalk in small portions at a time, reserving about one ounce; next add the other ingredients, the perfumes being first separately rubbed with the remainder of the chalk.—*Druggists' Circular*, Feb., 1890.

NEWS.

—The cholera is spreading in Mesopotamia.

—A new Medical College has been organized in Keokuk, Iowa. The building is already purchased.

—A new bill has been introduced into the Utah Legislature, providing for a Board of Medical Examiners.

—Dr. Henry M. Shields, of Yorktown, Va., has been elected Assistant Physician at the Eastern Lunatic Asylum at Williamsburg, Va.

—Dr. R. E. Moore, of Wytheville, Va., has been appointed by the Governor a member of the Board of Visitors of the Medical College of Virginia, to fill the vacancy caused by the death of Dr. S. C. Gleaves.

—A Pasteur Institute has been opened in New York City by Dr. Paul Gibert, for the preventive treatment of hydrophobia and the study of contagious diseases. Dr. Gibert will be assisted by Drs. G. Van Schaick and A. Liautard.

—Nine cases of typhus fever have occurred in New York City since December 24, 1889. All but two received the contagium of the disease abroad. Two developed it from contagium received from infected material brought to that city from Antwerp.

—In view of the spread of venereal disease in Italy since the repeal of the regulations formerly in force, the Minister of the Interior has appointed a commission to investigate the subject, and suggest measures for the repression of prostitution and syphilis.

—Mrs. Sally Weeks Bucknam died February 21, at Lancaster, New Hampshire, aged 100 years and 6 months. She was the oldest person in Coos county, and always enjoyed good health, retaining her mental faculties till within a few months of her death.

—The New York State Medical Society, at the annual meeting at Albany elected the following officers: President, Dr. William Warren Potter, Buffalo; Vice-President, Dr. L. S. Pitcher, Brooklyn; Secretary, Dr. Frederick C. Curtis, Albany; Treasurer, Dr. C. H. Porter, Albany.

—Dr. Samuel Crockett Gleaves died at Wytheville, Va., Jan. 14, 1890. Dr. Gleaves was born in Wythe Co., Va., in 1823; he was graduated from the University of Pennsylvania in 1848. In 1874 he was elected President of the Medical Society of Virginia, and in 1875 was made an Honorary Fellow of the same Society.

—The German Medical Congress which meets this year in Vienna is fixed for the 15th to the 18th of April. The Congress registers upwards of 300 members, and has its fixed habitat in Wiesbaden, but in the month of November last, this *Congress für innere Medizin*, selected Professor Nothnagel as the president for 1890, who, when accepting the honorable office, requested the members to assemble in Vienna.

—The State Board of Health of Pennsylvania has issued a warning notice that small-pox exists at five different points in Connecticut—Windsor Locks, Woodstock, Waterbury, East Windsor and Meriden. The Board recommends that persons having occasion to visit that region take the precaution of being vaccinated before leaving home. The Board also has information of small-pox in the States of Ohio, Michigan, Illinois and Massachusetts. Health officers in Pennsylvania are advised to be on the look-out for sporadic cases.

—The house staff of the Brooklyn Eastern District Hospital, consisting of Ambulance Surgeon Aldrich and Dr. John T. Gibbons, resigned last week. In handing his badge of office to Secretary Baker of the Board of Health, Dr. Aldrich said that he could no longer put up with the meals and accommodations furnished by the hospital authorities. The meals were served cold and the bedding was unclean. He had complained ineffectually to the managers so often that there was nothing left him except to resign. The matter will be investigated.

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Clinical Lecture.

EX-OPHTHALMIC GOITRE.

BY JAMES H. HUTCHINSON, M. D.,[1]

VISITING PHYSICIAN TO THE PENNSYLVANIA AND CHILDREN'S HOSPITALS, ETC.

Gentlemen: The first case I bring before you this morning is one of Graves disease. The symptoms are not as well marked as in the great majority of cases, yet they are all present. It is an exceedingly interesting disease of which I see, perhaps, one or two examples yearly. The patient, a female, is 33 years old, and was admitted on the thirteenth day of the present month. Her father died of apoplexy, and her mother suffers from shortness of breath. Her brothers and sisters are all healthy. She has always been healthy, but has had considerable mental troubles. Three months ago she noticed that her throat was swollen. Since then it has become smaller and larger at irregular intervals. She has suffered with palpitation of the heart which was attended with severe pain. She soon noticed that her eyes were commencing to bulge. This was accompanied by attacks of giddiness with tendency to fall. These attacks were preceded by nausea, and were ushered in by a distinct aura. They lasted about twenty minutes. At first she had one of these in two or three days, but they have increased in frequency, and she now has several a day.

Her present condition is as follows: She is thin, and says she has lost both flesh and strength of late. Her bowels are regular, her urine normal. She has no appetite. Her pulse is 128. Her temperature sheet shows no very marked deviation from the normal. It has usually not been above 99°. There has been, therefore, but a slight tendency to fever. Her respirations are 28. Upon her admission to the hospital there was noticed

[1] This clinical lecture was the last ever delivered by Dr. Hutchinson.

an excessive action of her heart. On examining this organ now I find there is a decided impulse with considerable movement in the præcordial region. This can be seen more plainly when I place this stethoscope over her heart, the motion being transmitted to the instrument. On percussing over this region there is no very great increase, if any, in the area of præcordial dulness. The impulse here is not so violent as it is irregular. On examining the heart more carefully by auscultation I find there is a systolic murmur to be heard very distinctly at the apex, but still more so at the pulmonary cartilage, and also less distinctly at the aortic cartilage. It is loud, but not particularly harsh in quality, and, I believe, is dependent upon an alteration in the quality of the blood, especially so since it is heard best at the pulmonary cartilage. However, I will not say this positively, since there may be some insufficiency of the mitral valve. In a long continued disease, such as this, there may result more or less enlargement of the left ventricle, and consequently the valve no longer be able to close the orifice. However, the woman is undoubtedly anemic, and the blood count made yesterday shows a marked deficiency in the number of the red blood corpuscles. They numbered but 3,700,000 to the square millimeter. On placing my stethoscope between the two insertions of the sterno-cleido mastoid muscle, I get a distinct hum over the jugular vein. Blood which is anemic, in passing through the jugular vein gives rise to a continuous sound like that of a humming top. This is one of the indications of anemia. The thinner a liquid is, the more readily is it set into vibrations. The anemic blood is thin and easily set into motion, and hence this murmur is heard.

Examining the woman further, I notice a very slight enlargement of the thyroid gland. I notice also another characteristic of the disease, an excessive action of the arteries of the neck. Here you can see the pulsation in the descending thyroid artery, and here is the beating of the carotid artery. This pulsation is not confined to the neck. All of the arteries are acting excessively, but we can see those of the neck most readily. The thyroid gland is decidedly enlarged, and its size seems to be increasing as I look at it. This woman has exacerbations of her disease, and these are probably due to an hysterical element in her case. I feel a very distinct thrill over this gland, but most distinctly in the descending thyroid artery. This has been called the "purring tremor," because of its resemblance to the feel transmitted to the hand when placed upon the head of a purring cat. It also feels as if sand were passing under the finger. As I have said, the tremor is not as distinct in the gland itself as in the artery. A continuous thrill is often felt in the gland itself, due, however, to the constant circulation there.

As I have said, the excessive action of the vessels is not limited to those of the neck. In the abdomen I find a marked impulse over the aorta. Listening here, especially with some pressure upon the aorta, I get a systolic murmur. The question then arises, is this vibration due to an aneurism, or is it simply a pulsation. If it were due to an aneurism, we could detect a tumor, but there is none here. Then, if there were no aneurism here, by placing the patient upon her hands and knees and listening with the stethoscope placed over the vertebral groove, no murmur would be heard. The sitting position is the proper position for the patient to be in when endeavoring to detect a venous hum. If lying down, the circulation in the veins is not as rapid as when sitting up. Listening over the carotid artery, I can hear a systolic murmur, that is, systolic with reference to the time of the action of the heart, but diastolic with reference to the action of the arteries. Very probably this could be heard in all of the larger arteries of the body.

Another very important symptom in these cases of Graves' disease is the prominence of the eyes. This is but slightly marked in this case, but becomes greater during her attacks or exacerbations. It may be so great at times that the eyelids will not close. I have seen such cases. At times this bulging is so extreme that the lids have closed behind the ball. In some cases prominence of the eyeballs is a natural condition, but if with it we find the other symptoms of rapid action of the heart and enlargement of the thyroid gland, of course we will make up our minds that our patient is suffering from ex-ophthalmic goitre, which is another name given to the condition. Graves disease is the name mostly ascribed to it, Graves first giving a full description of it as it occurred clinically. He was followed by Dr. Bardell, of Germany, who also described it, and hence, in Germany it is called Bardell's disease. Naming a disease after a man, however, is

objectionable. It is better to give the disease a name expressive of the condition present. The excessive action of the heart is always the most marked condition. It always precedes the onset of the other symptoms. We have no name, however, which exactly describes the condition found in this disease.

It is very important to examine our patients thoroughly. Some years ago a patient suffering from excessive action of the heart was sent to me by a friend, and I was just missing my diagnosis when, on asking the patient to remove his collar that I might listen to the arteries of his neck, I discovered an enlargement of the thyroid gland. I then noticed a slight prominence of his eyeballs, and thus made my diagnosis. Recovery finally took place in this case.

It is very difficult in these cases to explain the occurrence of all of the symptoms. This is not a mere palpitation of the heart, but it is associated with other symptoms. It is not an ordinary neurosis of the heart, but it is a neurosis, that is, the seat of the disease is in the nervous system. Some lesion of the sympathetic system is most probably present. We have a dilatation of the vessels, implying a paralysis of the vaso-motor nerves, but this will not explain the excessive action of the heart. Irritation of the vaso-motor nerves would produce an increased action of the heart, but a contraction of the vessels. We can explain the increased action by the larger amount of work required to fill the dilated vessels. The prominence of the eyeballs is due to an enlargement of the vessels back of the eye, and not to the presence of the hydrophthalmos, as was formerly believed.

As far at the prognosis is concerned, it is generally favorable. The disease has a tendency to get well of itself, certainly if the patient is placed under favorable circumstances. Of course, there are some cases in which death has occurred from pressure upon the trachea due to the enlargement of the thyroid. Ergot injected into the gland, or large doses of tincture of digitalis seem to be indicated for such a complication. Tracheotomy has been suggested and tried, but I am doubtful if it is proper under the circumstances.

The causes of this condition are not very well known. The female sex suffer much more than the male. I can recall but two cases of men who have had the disease, one who is now a physician and another in the practice of Dr. Morton. Among women I have seen at least twenty or thirty cases. Dr. Austin Flint has seen but one case in men. One to twenty is about the proportion in which it occurs in man. Nervous elements enter largely in the production of the disease. This woman has had considerable trouble. In other cases it appears to be due to a loss of blood, and it is therefore very common in those who lose blood by the rectum, as from hemorrhoids, or in those who suffer from a continuous loss of blood from any source. Anemia is often a coexistent condition in the disease, but is not necessarily a cause of the disease. It is not invariably present in the disease, and it may exist without Graves disease being present. Disappointment in love, and grief from any cause are frequently origins of the trouble, so we must look into the nervous system for the real causation of Graves disease.

The question of treatment is a very important one. The violence of the symptoms is not an indication of strength. We may have violence as a result of weakness. The heart may be beating rapidly, and yet needing tonics. So in this case we have given digitalis, while in some cases aconite would be more appropriate. The anemia calls for iron. We are giving this woman ten drops of digitalis and two grains of reduced iron three times a day. In addition to this the patient requires good nourishment. Easily digested, but highly nutritious food must be given. Milk is such a food, but with it a certain amount of solid food is desirable. Still more important than this is the rest. This patient is already very much improved and I attribute this to the rest she has had, together with the removal of the cause of her anxiety. With this treatment we will generally succeed in such cases. Galvanism, iodide of potassium, and iodine, locally and internally, have been recommended. It is better, however, to treat the symptoms as they arise. The disease is remarkably well borne in the great majority of cases. The patient may have it for years, and yet recover. It very rarely proves fatal of itself. In a patient weakened by it, however, a very slight cause will kill, and often an attack of pneumonia or of typhoid fever ends the case.

—A very old pharmacy is the Apotheke "Zum Mohren," in the city of Nuremberg, Germany, which in 1889 celebrated the 400th anniversary of its establishment.

COMMUNICATIONS.

CHRONIC INDURATION OF THE BREAST.[1]

BY G. G. DAVIS, M. D.,
PHILADELPHIA.

Having lately had two cases of chronic trouble with the breast under my care, I bring them to the notice of the Society, not on account of any peculiar interest which belongs to these particular cases, but rather because of that which attaches to the class of which they are familiar examples.

Case 1.—A young married woman, aged twenty-nine, had had four children, the youngest being two years of age. Eight years ago, with her second child, she had an abscess of the right breast. With her third child the breast again inflamed but did not suppurate. With the fourth it troubled her as soon as the child began to nurse, and ever since the child was weaned, at seven months, the pains in it have been severe. There is a small painful gland in the axilla which has been there ever since the breast was first affected; it has not increased any in size. Sometimes a thick yellow matter comes from the nipple. On examining the breast a distinct induration is felt on grasping it between the fingers and thumb, but on pressing it back against the chest wall it disappears, and only some indurated lines radiating toward the periphery can be felt. The breast is tender to the touch, the examination causing considerable pain. The diagnosis of interstitial mastitis was made, an ointment of belladonna and mercury applied, the breast well covered with cotton and bandaged firmly to the chest. Under this treatment the pain and induration disappeared, and she was advised to envelop the breast in cotton and wear a suspensory bandage.

Case 2 was also in a young married woman; her age was twenty-eight. She had had three children, the last being born five years ago. Two years ago she felt some pain in the left breast, and on examining it found a swelling as large as a marble above and to the outer side of the nipple. It was hard and tender to the touch, and could be moved around. She knocked it with a tub, after which it increased a little in size. It has pained her still more lately, particularly on using the arm or on handling the breast. For at least seven months there has been an enlarged gland in the axilla. Seven months ago she noticed a small lump also in the right breast; it was above and first to the inner and then to the outer side of the nipple. It was of the size of a cherry and painful. The patient was thin, but apparently quite healthy, with a good color.

On examination the left breast was flaccid, nipple retracted, and above and to the outer side of the nipple, both on grasping between the fingers and pressing flat on the chest wall, a small hard tumor was felt. The right breast was also flaccid and nipple retracted. There was marked induration, but no localized tumor on pressure. There was also an enlarged gland in the left axilla. She was subjected to the same treatment as the former case, and all pain and signs of tumor disappeared, leaving only a slight induration. There was no history of any abscess in either breast, nor has there been at any time any discharge from the nipples.

These two cases are of interest, because they show the manner in which benign growths of the breast commence, and their amenability to treatment in their earlier stages. There is no question in my mind that if these cases had been allowed to go on untreated they would have resulted in the production of some of those fibro-glandular tumors of the breast, for the removal of which incision would have to be performed. The question of diagnosis is also an important one. The promptness with which they improved under treatment demonstrated beyond a doubt that they were of a chronic inflammatory nature, involving primarily the fibrous structures. That the glandular structure in the first case was also somewhat involved was shown by the discharge from the nipple. The second patient had been told she had cancer by one doctor, and when she consulted an eminent surgeon in this city he urged the removal of one of the breasts. In one of the breasts of this patient, and also in the other patient, there was no tumor to be detected on pressing the gland against the chest wall, although induration was marked. This was probably because they had not existed long enough. Had the chronic inflammation continued, the fibrous tissue would eventually have become so contracted and matted together as to form a more or less solid mass, in the meshes of which the glandular tissues

[1] Read before the Philadelphia County Medical Society, January 8, 1890.

would have been imprisoned. We would then have commencing glandular changes, cystic formations, and, perhaps, peri- or intra-canalicular growths. Should the glandular structure, under the influence of irritation proliferate, a so-called adenomatous growth might be produced.

Concerning the origin of these growths, personally I regard them as largely the product of traumatic and irritative causes. In the first case the induration was undoubtedly due to the abscess with which the trouble commenced. In the last case the primary cause could not be ascertained. The subsequent increase in the trouble in one of the breasts was due, at least in some measure, to knocking it. This case complained of feeling pain in the breast on the approach of a storm, and also had pains in the shoulder, for which salicylate of soda was prescribed. It is possible that it may have been rheumatic in origin, and the probabilities of its being in part such are enhanced by the fact of the fibrous tissues being the parts affected. The dragging and movements and slight injuries to which the breasts are so often subjected evidently play such an important part in the production and increase of these growths, that it is to them our treatment ought to be directed. The breasts should be protected from any slight knocks by a thick layer of cotton, and all movements absolutely prevented by bandaging them securely and firmly to the chest by a roller bandage, over which are placed adhesive straps to prevent displacement. As regards the value of any applications of belladonna and mercury, such as were used in these cases, or of iodine, I am not prepared to say; but it should be borne in mind that if an ointment containing mercury is applied, it is perfectly possible to produce constitutional effects. I was compelled to abandon its use on one of these cases for that cause.

The question of prognosis is also an important one. Dr. S. W. Gross states that in 8.21 per cent. of carcinomatous cases the growth was preceded by chronic circumscribed induration; but this only occurred after an average period of fourteen years. The number of women who at some period of their life have had inflammation or abscess of the breast is very large, and the proportion of these that are attacked by malignant growths cannot be large, probably not any larger than is proportionate to the total number of women so affected. The relation is so small that I cannot believe it should induce the surgeon to recommend the removal of a breast so affected for that reason alone. If, in spite of careful treatment, a localized tumor and pain still persists, then an operation is advisable. The value of such a breast as a secreting organ is probably destroyed. Personally, I have little faith in the transformation of a benign into a malignant growth as a common event. That such instances do occur I am willing to admit, but I think it more likely that most of these cases which turn out malignant have in their origin been malignant and mistaken for benign troubles. There is no doubt that even with the aid of the microscope we are often unable to tell positively whether a certain growth is malignant or not; how much more liable then is the clinician to make the mistake? The dividing line between fibromas and sarcomas is not always well marked, and the same is true of adenoma and carcinoma.

In conclusion, I would recall to your attention the necessity of a careful examination before giving an opinion. Retraction of the nipple, even when associated with a hard growth and an enlarged axillary gland, is not pathognomonic of carcinoma. One of these patients was assured she had a cancer. The unnecessary distress caused by such an announcement can easily be imagined.

Another point which these three breasts illustrate is the influence a lack of proper protection and support have upon the progress of the affection. Had these been applied when the trouble first showed itself, its progress would probably have been checked at once, the disease permanently cured, and not have continued for years.

In cases of suppuration of the breasts one is too liable to dispense with dressings and support as soon as the wound has closed, forgetting that there is a mass left behind which, from continued irritation, may be the starting-point of a chronic inflammation, resulting in a more or less circumscribed fibroid thickening. A continuance of careful support and protection would probably cause a complete resolution and disappearance of the inflammatory products, leaving the breasts but little altered from their previous healthy condition.

—Aluminum is said to be coming into favor for dental purposes. It is better than rubber.

THE SYMPTOMS OF TYPHOID FEVER.

BY A. C. DOUGHERTY, M. D.,

NEWARK, N. J.

The varying degrees of poisoning by the typhoid ferment and the difference of individual susceptibility gives each case its own peculiar interest. There is no symptom of typhoid fever which can be considered as pathognomonic. Cases are recorded by Leibermeister in which the amount of infection was so small, or the individual power of resistance so great, that the disease ran its course without any fever: cases of so-called febrile abdominal catarrh. But in Basle, where his observations were made, the distribution of the typhoid poison is so widespread that swollen Peyer's patches are frequently found in persons who have died of other diseases, or who have met death by accident. I regret to say that my tabulation of the symptoms in the twenty cases to which I shall refer, is not as complete as it would be had I had the opportunity of observing the cases from the beginning. The gradual invasion of the disease is justly looked upon as an important help in forming a diagnosis in a doubtful case; but in my twenty cases forty per cent. were taken ill suddenly. In one the disease was ushered in by a hard chill, and in two no chill occurred. The symptom of most constant occurrence, next to the fever, was diarrhœa; which occurred in ninety per cent. at some time during the course of the disease. In six of the cases the disease was ushered in by this symptom. In seven it occurred within the first week; in four in the second; and in one in the third week. The cases were all mild, except one, the highest recorded temperature after admission to the hospital being 105⅖° F.; while in another case the fever after admission never exceeded 102° F. Lassitude and somnolence ushered in most of the cases—eighty-five per cent. Headache was entirely absent in four of the cases. Abdominal tenderness was present in but nine; while more or less tympanitis occurred in twelve. Eight only had epistaxis; and five were delirious. The dull facial expression was noted in nine. In one the bowels were regular throughout the course of the disease. In another the bowels were regular on all but two days; when diarrhœa prevailed. In one constipation was persistent; and in three this condition and diarrhœa were alternately present. The eruption was noted in eleven; while in three it was absent. In the remaining six cases I was unable to ascertain whether or not there had been a rash. Intestinal hemorrhage took place in one (a walking case), occurring in the third week. Deafness was present in one after the eleventh day; vomiting in four; in one of which it ushered in the disease; nausea in one and bronchitis in three patients; two of whom developed a pneumonia. Three of the cases had a relapse, and one was suffering from a relapse at the time of her admission to the hospital.

Finally, as to the drinking-water: Ten had been in the habit of drinking hydrant water and ten claimed that they used well water. In one of these cases the well water was obtained from the hospital pump. In none was the thermometric record typical. The average age was 27.6 years. In this tabulation it is shown that there was but one symptom common to all the cases, namely, the continued fever; and, as I have quoted, it is claimed that even this may be absent and yet the patient have typhoid fever, which—even though mild to a degree—would require greater care in diet than would be accorded to a case of any of the other diseases with which this condition would be liable to be confounded.

How then shall we avoid error, and with what diseases in this locality is typhoid fever most liable to be confounded? It would seem that he who takes the least for granted is the one who is less likely to fall into error. The presence of the disease in the locality, the age of the patient, his family history, the fact that the disease is usually ushered in by chilliness and not by a violent rigor, a careful investigation of the chest, the observation of a gradual but steady rise in temperature, and of the inutility of cinchonism at the commencement in the relief of symptoms, the epistaxis when that occurs, and the rapidly lowered vitality, together with a wide-awake patience until the rash, splenic enlargement or abdominal symptoms show themselves, should in the vast majority of cases clear up all doubt.

It is true that gradual invasion, chilliness, lassitude, continued fever and prostration—symptoms common in simple continued fever (in the rare cases where that occurs)—and in remittent fever, are in many cases the only symptoms in the early stages with which we will meet; but a careful examination of the chest and of the urine, the fact that simple

continued fever comes to an end at a time at which, in typhoid, the symptoms begin to be more and more marked, together with a microscopic examination of the blood in suspected remittent and of the sputa in suspected phthisis, ought to clear up the diagnosis or at least strengthen the suspicion of typhoid sufficiently to keep the patient on safe diet and in bed until we are enabled to arrive at a conclusion. We should, moreover, be mindful of the fact that the typhoid state is not necessarily typhoid fever; that the dry tongue, the subsultus and the mild delirium are simply symptoms of depressed vitality, and are to be found in all diseases characterized by profound vital depression. Da Costa describes a case which all the symptoms (even to a doubtful rash) of typhoid fever, except the diarrhœa, were present, but in which the autopsy showed these symptoms to have been the result of a suppurative nephritis. Moreover, it is well to bear in mind that photophobia and retraction of the head may occur as a result of the action of the typhoid poison upon the nervous system and together with the vomiting that occasionally occurs, simulate cerebro-spinal meningitis.

There can be no doubt but that many mild cases of typhoid fever run their course without their true character being so much as suspected. On November 17, 1888, I was called to see a man who gave the history of having been greatly prostrated by a bad cold for two weeks. He said that the only symptom that caused him distress was a stitch in the intercostal region of the left side, accompanied by a distressing cough. He had a slight fever at the time of my seeing him and gave a history of malarial poisoning. Finding a bronchial catarrh over both lungs, and being in a hurry, I carelessly attributed his symptoms to his bronchitis and to malaria, and told him to send for me again when his medicine was used if he felt no better. On November 24, I was again called to see him, and found him somewhat better but still very weak. He then told me that he had neglected to inform me at my first visit that he had had a diarrhœa since the early part of his sickness, and, on close questioning, remembered that his fever had been continuous from the beginning of his illness up to four days back. I then examined the abdomen and found it tympanitic, somewhat tender on pressure in the right inguinal region where also pressure elicited a gurgle. He also told me that his stools had been numerous, yellow in color and very fetid. His mother then completed the diagnosis by stating that he had been delirious during his sleep since shortly after his illness began. Of course he had gone through a mild attack of typhoid fever, and I, in my haste, not inquiring as closely into the history of the case as I should and giving undue weight to his chest symptoms, and not having been told of his diarrhœa, had not suspected his real sickness. I remember another case that came under my care while connected with the house staff of St. Michael's Hospital. The man gave a history of having had quotidian intermittent fever for several weeks before his admission. His fever was now found to be continuous, with morning remissions and evening exacerbations, and the man was closely questioned and examined in the expectation of his disease proving to be typhoid. I remember that his face was flushed, his tongue moist and covered with a white fur, his bowels obstinately constipated, his abdomen not particularly swollen; that he had no abdominal tenderness, no gurgle, and no spots, and had had no nose-bleed. We therefore gave him Clark's powders night and morning, in the belief that his fever was of a malarial character. Complaining one evening rather more than usual of the torpid state of his bowels, the Sister gave him a dose of a saline mixture. The next morning, his bowels having been but slightly moved by the purge, as he complained of considerable pain in his abdomen, the visiting physician, thinking the pain due to flatus, the result of an incomplete evacuation, ordered another dose of the purgative. Fifteen minutes after taking this, he was suddenly seized with the most violent cramps and died within a few hours. On *post-mortem* examination I found that death had resulted from an acute general peritonitis, the result of the giving away of a deeply ulcerated Peyer's patch in the ileum, the perforation being large enough to admit the end of the little finger. Previous to the pain complained of after taking the purge this man had not presented a single characteristic symptom of typhoid fever.

We are thus warned that typhoid fever may run a great part of its course without giving rise to any more characteristic symptom than the continued fever, and that it is our duty to observe all of the precautions usual in the case of this fever in the management of any case of continued fever in

which the disease has not been positively determined. I lay so much more stress upon the mild forms of the fever than upon the severe ones, because of the greater likelihood of error in diagnosis, and also because of their frequency. It is hardly necessary to call to mind the statement so commonly made in the books on the diagnosis of this disease, that there is a possibility of confounding it in the beginning with measles, small-pox, scarlatina and diphtheria. But though the symptoms of invasion may, in many respects, bear a strong resemblance to typhoid, a few days would clear away all doubt. Still I saw a case of diphtheria for Dr. Wrightson last autumn in which, besides the gradual invasion, chilliness, low temperature, lassitude and headache, the man complained of excessive tenderness in the right inguinal region. A few days later, and the patches had made their appearance on the tonsils.

As for the other diseases that may possibly be confounded with typhoid, namely, enteritis and acute pulmonary tuberculosis, they need only be borne in mind in order that we may be on our guard as to their symptoms possibly being the cause and not the effect of the typhoid condition. In case of uncertainty as to whether we have to deal with the pulmonary complaint or with typhoid, a microscopical examination of the sputa would clear up all doubt.

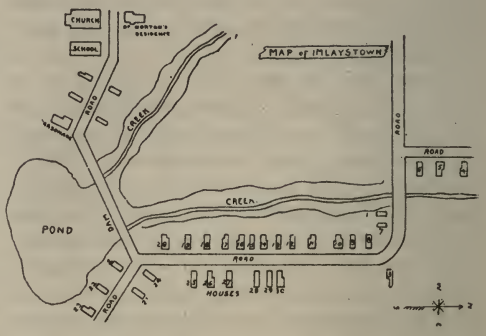
I would state, in closing, that it is a safe rule to suspect the existence of typhoid fever in nine-tenths of the low continued fevers occurring in this locality, between the ages of fifteen and thirty-five years, when sufficient time has elapsed since the invasion of the disease to exclude malarial, infectious or pulmonary complaints.

—The endeavor to establish a botanic garden in the City of Montreal, three years ago, though it met with great opposition at the time, says *Garden and Forest*, is likely to be realized at no distant day, though the original plan has been greatly modified. For some time past efforts have been directed toward the establishment of a garden in connection with McGill University, and the end has been so far attained that a portion of the grounds, embracing somewhat more than three acres, has been set apart for that purpose, the intention being to occupy eventually about six acres.

TYPHOID FEVER AT IMLAYSTOWN, N. J.

BY H. G. NORTON, M. D.,
TRENTON, N. J.

In Imlaystown, Monmouth Co., N. J., typhoid fever has existed, or shown itself, every summer and fall from 1882 to the present time. Coming east on the Allentown road, shown on the accompanying map, to house No. 1, we find flat country, with a substratum of clay near the surface, shallow wells largely filled with surface water, and poor drainage or none, then a sharp descent to Empty Box Creek, the east bank of which rises to a height of ten or fifteen feet to the road through the village. Along both sides of this road small houses are huddled together, until we reach a point where Empty Box Creek flows into Doctor's Creek. Near this junction is a grist-mill, where the road



turns and ascends a hill, upon both sides of which are houses of a good class, on high ground. The wells in this portion of the town are from twenty-five to thirty-five feet deep, passing through a sandy loam down to a bed of marl. As there has never been typhoid in this section I will not write of it further than to point out the usual disregard of hygiene evident in this afflicted town by the location of the school-house, which is built upon the site of an old barnyard. A shallow well at the door supplies the water. No specific sickness has been traced to the school; but certainly we might expect people in the country, where land is plenty and of little value, to make a better selection of locality for a school-house.

Inspection shows the houses first noticed

to be built about twenty or thirty feet from the bed of the creek, with basement kitchens having wells of not over six to ten feet deep (the bottoms of the wells seem to be on a level with the creek) at the door, often under a shed, and for convenience or necessity the privies near by, though many of the privies are built over the creek.

It is the universal custom to throw out of the kitchen door all slops, dish-water, house sweepings, etc.; besides, in nearly every yard of not over thirty feet square either chickens, hogs, or a cow, or all, are kept. Many of these yards are densely shaded with trees. The soil, when turned up in summer, smells sour and bad, is black, watery and grease-soaked, pasty and slimy to touch, not crumbling readily, showing that air and sun do not penetrate it to purify it, and that this condition is continuous.

Many of the occupants of these houses take in washing. Where they do, the laundry water is emptied out of the kitchen door upon the ground near the well, which of course adds to and keeps up the filthy condition of the soil. All this, it seems to me, makes a good culture field for typhoid fever.

I will now give a short history of each of these houses, as I have watched them for seven years. For convenience of designation I will refer to them by number. To house No. 6 a young man came home from the seashore on September 22, 1882, with typhoid fever, from which he recovered after a severe illness of six weeks. As is my custom I ordered the excreta to be buried; and if they were buried, this was done in a meadow near the creek. I do not think this case had any connection with the subsequent cases, as there was no case in this house again until in 1886; but I give it as the first case in the series.

On August 12, 1883, a young man came home, also from the seashore, to house No. 1, where after five weeks' sickness, he recovered. Here, also, the excreta were ordered to be buried; but in spite of protests, this family have been careless in disposing of laundry water, throwing it around the well, where, through rat-holes and the drain, it quickly entered the well. As the well at this house is arranged as is very common among farmers, I will describe it carefully. For convenience the well is in a shed or kitchen adjoining the house; under the floor and below the pump-nozzle is a "pump-box" emptying just outside the kitchen wall into a hole in the ground, about one foot deep, loosely walled up at the sides without cement. At the bottom of the hole are some under-drain tiles, open at bottom and at joints, leading off a short distance underground to nowhere in particular. This very primitive and inefficient drain was laid after a visit from the local Board of Health, which instructed the people to do something. This mis-called drain is particularly dangerous, as it hides all the slops underground and just over the well. Now when we consider that into this pump-box is thrown all the laundry water, the rinsings of chamber vessels often, dish water, milk from the washing of milk-pans and cans, it is no wonder we have a disease-infiltrated soil and a constant percolation into the well. At many farm-houses there is not even the pump-box, but the water is poured around the well to go where it will—into the well, of course. In this house there has been typhoid every summer since its introduction in 1883. Dr. F. C. Price, my successor in Imlaystown, tells me there is a severe case there at this writing.

In house No. 4, we had one case in 1886; No. 7 was not occupied; in No. 8 there was one case in 1886; in No. 9 one case in 1885, and dysentery (?) in 1887. In No. 10 there were two cases in 1887; in No. 11 one case in 1888; in No. 12 two cases in 1885 and one in 1886. From the well of the house, situated as above described for all these houses, I took a sample of water and submitted it to Prof. Cornwall, of Princeton, for analysis, through the courtesy of Dr. E. M. Hunt, of the New Jersey Board of Health. The following is Prof. Cornwall's analysis: "Result per 100,000 parts: Free Ammonia 0.0145; Albuminoid Ammonia 0.01; Oxygen consumed 0.128; Nitrogen in Nitrites and Nitrates 5.36; Chlorine 12.1. This sample contained very much nitrites, and evolved an odor of rotten straw when boiled. The analysis indicates the presence of very recent and excessive drainage or other animal contamination." I might add that in this small yard, 20 x 40 feet, was kept a cow, two hogs and poultry; and that every day very dirty laundry water was emptied on the ground, as the occupant of the house takes in washing. In No. 13 there were two cases in 1886, one fatal. The well water here was also examined by Prof. Cornwall. The owner had honestly tried to do all she could to improve the water as advised by the local Board of Health the year before. Local boards have power

to advise freely, granted them by the Legislature. Prof. Cornwall writes of this well: "Result per 100,000 parts: Free ammonia 0.0034; Albuminoid Ammonia 0.0057; Oxygen consumed 0.076; Nitrogen in Nitrites and Nitrates 2.88; Chlorine 15.4. This sample is much purer organically, but still has a very great excess of chlorides and nitrates, indicating previous contamination by sewage or drainage from inhabited grounds. I should consider its use dangerous. It showed a trace of nitrites."

Prof. Cornwall never knew the history of these wells. No. 14 was not occupied. In No. 15 there was one case in 1886. There is no well at this house, and the fever was contracted undoubtedly at No. 2, where the subject of it stayed during the day, sleeping at home. In No. 16 there was no typhoid fever. The well here was in front of the house, on higher ground, and not in the way of slops. As this well seemed to be most cleanly, I always advised people to use it, as Nos. 15 and 24 did altogether. In these houses there was only the case mentioned above—No. 15, where the disease was contracted at No. 2. No. 17 had the nastiest well and surroundings I ever saw for three or four years, and yet not until this year was there any typhoid fever there. In this house there were two cases this year. At No. 18 the well is kept clean and removed from the door, and there was no fever there until this year, when the mother contracted the fever while nursing her son and daughter at No. 17. In No. 19 there were two cases in 1888, and in No. 20 one case in 1888. No. 2 had one case in 1885, one in 1886, one in 1887—contracted here but sick at No. 15.

No. 22 had one case in 1886, No. 23 two cases in 1888. No. 24 had no well and no fever, the occupants using well of No. 16. No. 25 has a well in the front yard, seemingly clean. In this house one case in 1887, called malaria, might have been mild typhoid. No. 26 had one fatal case in 1885. The well was at the kitchen door and in bad condition. No. 27 had no fever. The well is distant from house, and clean. No 28 had one case in 1887. No. 29 has a clean well removed from house and had no fever. No. 30 is a church. No. 31 had a clean well and no fever.

During this epidemic of typhoid at Imlaystown there have been numerous cases at isolated farm-houses, many probably contracted in the village. The cases were undoubtedly typhoid, and have been seen by Dr. D. Benjamin, of Camden, Dr. P. B. Pumyea, of Allentown, Dr. F. C. Price, of Imlaystown, and myself.

The evident conclusions seem to be that the germs of typhoid fever in suitable soil or water will cause the disease year after year.

The germs seem to lie dormant through the winter; perhaps, as I heard stated in Professor Dixon's paper, read before the New Jersey Sanitary Association lately, the germs do not seem to live in water more than four days; they may multiply in the soil I have described, and, during the winter, in the frozen ground remain inactive, or hibernate; or, as these wells are higher in winter, the increased dilution of the water may account for the absence of the disease. Polluted water without the germ will not cause typhoid fever.

The prevalent custom of having wells at the kitchen door of farm-houses is bad. Where wells are remote from the house few cases occur. Although the bottoms of these wells are on a level with the brook I do not think the germs found their way from the wells to the creek, or *vice-versâ*, as the houses near it were not all affected in the same year. There were no cases in 1884, and this I attribute to the very wet and cool summer.

ENTERIC FEVER COMPLICATED WITH CATARRHAL PNEUMONIA.

BY J. NEWTON HUNSBERGER, M. D.,
SKIPPACK, PENNA.

Mrs. R., 53 years old, consulted us (Dr. Samuel Wolfe and myself) at our office, for a dull, persistent headache, pain in the limbs, loss of appetite and a feeling of general malaise. She had also complained of a slight chill the preceding day. Our diagnosis was malaria, a disease she had frequently suffered from; and she was accordingly put on full doses of quinine. We saw her again five days later and found her sitting up, with a pulse of 130, full and bounding but not wiry. Her respirations were 38, with a good rhythm, and her temperature 102° F. On examination, râles were discovered over the base of both lungs; these varying from the fine dry crepitant râles to sub-mucous râles, with areas of impaired resonance over the anterior aspect of

both lower lobes. The vocal fremitus was slightly increased over the lower areas. The patient's cheeks were slightly flushed; her urine rather scanty and febrile in character; her cough slight but rather hard. A diagnosis of catarrhal pneumonia was made.

The next day, however, the patient was suffering from a diarrhœa, with characteristic ocher colored stools. The headache was still increasing in intensity, and the patient's countenance was heavy, dull, lethargic. There was no epistaxis. The chest symptoms remained unchanged.

On palpating the abdomen there was some slight tenderness found in right iliac fossæ but no gurgling. Typhoid fever was suspected, and the appearance of the typical rose-colored spots on the following day confirmed the diagnosis. The lung symptoms increased in severity until the end of the third week. Both lungs were affected.

The examination each day would reveal new areas undergoing partial or entire consolidation, while other areas, previously examined and carefully marked, were showing signs of a beginning resolution, or were far advanced in that stage.

The pulse all through the disease, until convalescence, varied from 120 to 130; her temperature ranged from 100° to 102.5° F.; her respirations until the end of the fourth week varied from 30 to 38, being increased on the slightest exertion.

She was in bed for five weeks and convalesced slowly, but complete.

The treatment was simple. When first seen she was ordered to bed and put on a milk diet exclusively, taking a quart of milk a day. This was kept up during the first four weeks. At the first she was given senna, small doses of veratrum viride and liq. ammoniæ acetatis; this was only continued for a day. She was then put on a carbonate of ammonia mixture alternating with dilute nitro-muriatic acid and quinine.

Her pulse showing signs of weakness at the end of the first week, she was given digitalis, and a week later she was put on French brandy, taking from 6 to 8 ounces per day.

The diarrhœa was held in check with subnitrate of bismuth, except for two or three days during the third week, when three grains of acetate of lead and one grain of opium (powdered) were given.

I think this case is rather unique. In the first place it is rare to have a catarrhal pneumonia, involving both lungs, complicated with typhoid fever; and also rare to have so much of the lung tissue affected and yet with so complete a recovery.

Society Reports.

NEW YORK ACADEMY OF MEDICINE. SECTION ON ORTHOPEDIC SURGERY.

Stated Meeting, Nov. 15, 1889.

A. B. Judson, M. D., Chairman.

Dr. H. L. Taylor read the paper of the evening on

The Treatment of Talipes Equino-Varus by Continuous Leverage.

Viewed from behind, this deformity is a curve of the foot and leg with its convexity directed outward. In order to exert continuous leverage, a splint is applied to the inner or concave side of the curve, and then the deformity is reduced by drawing the foot and leg to the splint. By progressively bending the splint, valgus may be produced. Leverage should thus be applied to overcome first the varus, and afterwards the equinus, the heel cord being left until the plantar fasciæ have yielded. Tenotomy does not take the place of systematic mechanical treatment. Much disappointment has been caused by failure to realize that it is only an incident in the treatment of club-foot.

The appliance used by Dr. Taylor consists of a steel shank, which is easily bent according to the requirements of the case, pivoted to a foot-piece composed of a sole plate and a side plate. It is worn inside the shoe. The shoe cannot hold the foot, as it has no certain grasp, and the foot slips and turns inside. The foot is to be held and gently forced into position by the properly applied pressure of straps and buckles, the sole being kept in contact with the sole plate by a three-tailed adhesive plaster applied to the leg, a piece of webbing being attached to the plaster and buckled to the heel of the apparatus. Moderate continuous stretching thus applied is irresistible, and is easily borne by the patient. During the prolonged after-treatment, the patient goes about quite independently, the brace being completely concealed by the shoe and stocking.

Dr. V. P. Gibney had formerly corrected both the varus and equinus at once, but for some years past he had been in the habit of first converting the equino-varus into equino-valgus, and then reducing the equinus, the after-treatment being conducted with a retentive apparatus. He preferred taking six months to reduce the deformity, which can be done in many cases without tenotomy; but a speedy method consists in giving an anæsthetic and molding the parts for ten or fifteen minutes, and then reducing the varus by manual force. A light plaster of Paris bandage holds the foot in equino-valgus for four weeks, and then the tendo Achillis is cut, and for ten days the foot is held in calcaneo-valgus. An apparatus is then applied and the parents are instructed in regard to the after-treatment. In those cases in which the bones are unmistakably distorted and elongated on one side and atrophied on the other, he had tried various methods, including excision, stretching and gradual rapid replacement, with good results.

Dr. N. M. Shaffer preferred to use an apparatus applied on the outer side of the foot, believing that if applied on the inner side, it will have an improperly located centre of motion, as was demonstrated on the blackboard. Points of pressure, however, are made as in the apparatus described by Dr. Taylor, on the inner aspect of the heel and the inner and upper aspect of the tibia; while between these points of pressure there is inserted a centre of motion to the outer side of and below the external malleolus. The operator is thus enabled, by the use of the key, to exert real traction force on the resisting lateral tissues, the heel being thrown downwards and outwards, after the straight line is reached, instead of upwards and outwards. He had not found it necessary to use adhesive plaster in this method of reducing the deformity. He favored the application of exaggerated force at very short intervals if reduction cannot be effected by constant pressure. As soon as this rigorous treatment has made it possible for the patient to properly apply the foot to the floor, a walking-shoe is applied, which makes use of the weight of the body as a means of overcoming muscular and ligamentous resistance.

Dr. R. H. Sayre said that the treatment of club-foot is simply a question of bringing the foot into a normal position and keeping it there while shortened tissues are gaining length, and lengthened ones are contracting to their proper dimensions. If resistance is encountered, cutting the fibres is certainly preferable to tearing them by the exercise of great force. Whether or not a tissue can be stretched may be determined by putting the part on the greatest possible stretch and, while so stretched, making point pressure with the finger or pinching the part between the finger and thumb. If a reflex spasm is obtained, this tissue will not stretch. Dr. Taylor has well said that tenotomy and osteotomy are only steps in the treatment; and the method to be adopted is to keep the foot in the normal position while it is growing. We may derive encouragement from the marked results of the Chinese in their persistent efforts to deform the foot.

Dr. Judson preferred a lever on the inner side of the foot and used a single strip of adhesive plaster wound around the foot and buckled on the side of the foot-piece. In this way the ankle is drawn into the concavity, the foot is untwisted, and the heel is held in contact with the foot-plate. In the new-born the deformity is to be reduced in the most convenient of a half-dozen approved methods. This must be done gently and thoroughly by the time the child begins to walk. After that, a light brace, worn for many years, should hold the foot on the right side of the dividing line between varus and valgus, so that every foot-fall of the growing child shall give an impulse toward the normal shape.

Dr. Ridlon thought that orthopedic surgeons frequently failed to recognize the fact that the after-treatment in these cases is of the same duration whether the deformity be corrected in a few days by operative means, or only after many months or years by instrumental means. It is doubtful if it be justifiable to confine a patient for so long a period as is usually done when instrumental means are employed, simply to avoid an operation. Another object to the mechanical treatment of these cases is that valuable time is lost during the period of growth, for a crooked foot grows crooked, and a straight foot straight. It would therefore seem desirable to correct the deformity at the earliest possible moment in order to get the benefit of the growth in the correct position, and in order also to get the correcting force of the superincumbent weight as described by the last speaker. Congenital cases in very young children, which yield readily to stretching, may be treated in that

way; and other cases which can in a reasonable time be corrected by intermittent traction, would seem to be suitable cases for mechanical treatment; but the severe forms of club-foot should be subjected to more vigorous measures.

Reports of Clinics.

NEW YORK POST-GRADUATE MEDICAL SCHOOL.

CLINIC FOR DISEASES OF CHILDREN.—PROF. J. H. RIPLEY.

Ununited Fracture of Humerus.

The first patient presented was a boy, one year old, who was brought by his mother for loss of power in the right arm; he was unable to lift his hand. Without going any further into the history of the case, Dr. Ripley asked the class what causes would produce paralysis of one arm. Meningitis and tubercular meningitis were suggested. Dr. Ripley said that the palsy produced by meningitis might persist for some time after the inflammation in the brain had subsided and occasionally in one limb alone. Other causes were syphilis; pressure on the nerves, as from lying upon the arm; an abscess pressing upon the nerve; and, operating in the same manner, a tumor or an aneurism (not likely in young children); infantile paralysis; a dislocation of the head of the humerus; or fracture of the anatomical neck. And there was one other cause that he had once seen overlooked by a prominent surgeon of this city—an exceptional cause to be sure, but nevertheless one that does occur, namely, fracture of the clavicle: the callus and the displaced fragment so pressing upon the nerves that entire motion of the arm may be lost.

With the causes of this condition in view he then proceeded to the history and examination of the case. The mother said the loss of power had existed from birth. For several hours the left arm was similarly affected. For the past month the child possessed the power of rotation of the hand, but made no attempt to lift it up. On being questioned she said her labor was a breech presentation, and that she was attended by a midwife. This evidence, Dr. Ripley said, was almost a demonstration. The child has a good appetite, and the bowels are regular. He is bottle-fed, on condensed milk; which Dr. R. believes to be the best artificial food to be had in large cities. Examination of the arm shows some wasting; it can be forcibly raised to a right angle with the body, but no further, and then it causes pain. There is a depression under the acromion process, showing atrophy of the head of the humerus, and below the head there is a displacement with some motility and an occasional crepitus. There occurred at birth, then, a separation of the epiphysis.

But what was the reason that this did not unite? For, usually, when dressed with a simple splint and kept in proper position, these fractures heal in about ten days?

Examining the baby's head it is noted that the forehead is of square shape and the head asymmetrical, showing imperfect bone development. This, therefore (together with the fact that probably at the time the accident took place no treatment was adopted), explains the condition found in the patient.

With reference to the treatment, there is not much to be done. Passive motion of the arm, and particularly attention to the general health are the measures of the greatest value. He would order this child, for the present, cod-liver oil. Eventually the child will get some use of the arm; but he will never possess full power.

Cardiac Hypertrophy; Mitral Regurgitation.

The next patient was a girl in her sixteenth year. Attention was called to the fact that she appeared to be but nine or ten years of age, and that she was anemic and poorly developed; also her respirations were hurried. These points Dr. Ripley had the gentlemen note for themselves. Her mother supplied the following history: Since she was three years old the child had been complaining; had grown short of breath on exertion, and weak; her appetite was poor, and she had become very emaciated. She was brought to the Clinic for persistent vomiting that set in one month ago; she now was able to retain almost no food upon the stomach. The mother had had seven other children; they were all plump and healthy. This child had been thin since birth, but was always considered in good health until the past few years. She had been strong and able to play. She had measles when one year old. She was asked how long the child had been sick, and how long the erup-

tion had lasted, etc.: questions to determine whether she positively had measles, and whether the disease was complicated or not. She had never had scarlet fever, whooping cough, diphtheria or chicken-pox. Especial attention was called to inquiring concerning these points in all diseases of children. In chronic cases we are guided toward our diagnosis by the possible sequelæ, and in acute diseases, and particularly in fevers, we are assisted in the same direction by being able to exclude those fevers which the patient has already had.

Another question to ask is, has the child been vaccinated? Dr. Ripley mentioned a patient he had seen two weeks before, fifteen months old, who appeared very sick and had a temperature of 106°. There was no eruption and no inflammation in the throat. As the location was opposite the small-pox Hospital, and as the child showed no scar of vaccination on the arm, it was natural to suspect small-pox. The case proved to be such; the rash appearing the following day. The child died.

The chief symptom in the patient before the class when she first came under observation was the vomiting; indeed the mother at the time said that was all that was the matter with her. So Dr. Ripley asked the gentlemen to name for him the causes of vomiting.

The following were given: indigestible food; catarrh of the stomach; cerebral lesions; constipation; ulcer and malignant disease of the stomach; stricture of the œsophagus and pylorus; obstructions of the intestinal tract; kidney disease (a very important cause, as it is liable to be overlooked); irritant poisons taken into the stomach; poisons inhaled; reflex irritation, such as uterine disease, post-nasal disease, etc.; cardiac disease, producing congestion and even catarrh of the stomach (another important cause to bear in mind); traumatism; worms in the intestinal tract. Dr. Ripley said that, as a rule, he placed little stress on worms being the cause of any sickness; but he had seen an autopsy in one case where death was due to an obstruction of the bowels from worms.

The patient now bared her chest, and it was noted that development was deficient, that there was marked emaciation, that the chest was asymmetrical, the left side being larger than the right, whereas the right should be the more prominent (especially in boys), and that the veins over the chest were unusually distinct and numerous. Respirations were quickened, and the action of the heart increased in force and frequency. The apex was about in normal position; but the heart was enlarged, and a loud blowing murmur was heard at the apex, with the first sound transmitted to the left and heard distinctly at the angle of the scapula. Dr. Ripley urged the class to become familiar with physical diagnosis. It was his experience that no branch was more neglected by a great many of the profession—they were satisfied to say, this or that patient has some heart trouble. He offered the proposition that a good physical-diagnostician was a good doctor; and *vice versâ*, the man careless in his physical diagnosis, a poor one.

The prognosis in these cases of mitral regurgitation with hypertrophy of the left ventricle in children is not so bad as is generally supposed. Ordinarily of a child five or six years old, with such a murmur, it can be said that his disease will not terminate fatally for some time and perhaps not for many years. He recalled the instance of the child of a physician of this city whom he saw eleven years ago. Her heart symptoms were more marked than those in the patient before the class; she had severe dyspnœa and attacks of pulmonary congestion, and was generally considered a hopeless case. To-day she is a young lady eighteen years old. The murmur is not so loud nor diffused, though still present and she suffers from no over-action of the heart. Indeed she is not, properly speaking, an invalid. In the present case, however, there were certain points that made the prognosis less favorable. The child was somewhat rachitic, and there was not proper compensation, and the blood was not thoroughly oxygenized. She had not been long enough under treatment, it was true, to determine whether or not the heart could be aided in overcoming some of these conditions.

—Complaints of over-pressure in schools are as numerous and universal in Sweden as in many other Continental countries. Sweden is, in fact, one of the countries where this fact has first roused the public interest, as has been proved by Professor Dr. Key several years ago, in a pamphlet full of trustworthy statistical information, and showing that anæmia, chlorosis, and other diseases are due to, or are at least greatly promoted by, the existing overwork in the schools.

PERISCOPE.

Syphilis and the Hot Springs of Arkansas.

Dr. E. L. Keyes read a paper on the subject of syphilis at a recent meeting of the New York Dermatological Society, the proceedings of which are published in the *Journal of Cutaneous and Genito-Urinary-Diseases*. The paper received quite a thorough discussion, and it will be of considerable value to note the various opinions expressed. Dr. Keyes believes that the waters possess a decided influence in the cure of syphilis, from personal observations which he has made at the Springs, as well as from the effects which he has seen produced on patients sent there by himself. In accordance with the general belief of the profession, his observations showed that the physicians who did well at the Springs used mercury by inunction most unsparingly and iodide of potassium internally in enormous doses, and this was just where the value of the Springs seemed to lie. A cure is effected in even desperate cases of late syphilis by means of the hot baths and the internal use of the water, which enable the patients to bear the drugs in greatly increased quantities. It is the broken-down, cachectic patients whose stomachs refuse to tolerate a sufficiently high degree of specific medication at home who should be sent to Hot Springs, for there three or four times the quantity of iodides can be given without upsetting the stomach, and increased quantities of mercury by inunction without producing salivation. He would recommend all patients to go to Hot Springs at any sacrifice of time, money or comfort, who were suffering from serious involvement of the brain or spinal cord, and who could not at home be made to tolerate sufficiently high doses of the specific remedies to control the disease. For ordinary cases of syphilis, however, he did not think the Springs could shorten the duration of the disease, prevent relapses, or cure it in any sense. There was no value in suppressing the early symptoms of the disease by heroic treatment, as employed there; it made the patient less willing to undergo prolonged treatment at home, which he considered gave the patient the best chance of future immunity from the disease.

Dr. Fordyce, whose personal experience covers a period of three years at the Springs, stated that many patients who came to the Springs after a prolonged mercurial course at home, developed ptyalism after a number of baths, thus supporting the view that the waters have an influence in eliminating the drug. This effect is probably due to the increased capillary circulation, favoring tissue change and greater activity in the elimination of matter foreign to the tissues. Individuals who come from a malarious district, though having suffered no acute outbreak for years, often, after bathing for one or two weeks, develop some form of malarial fever; gouty subjects, too, after hot baths, frequently have an acute outbreak of their trouble. It is observed, also, that new growths, especially those of a malignant character, take on increased activity of development after the use of the hot baths, so that it is a matter of common report at the Springs that persons affected with cancer should not use the hot water. Aside from theoretical considerations, experience shows that many cases of late syphilis are more quickly cured at the Springs than at home. On the other hand, he has never been able to convince himself that the early stages of the disease were more rapidly cured there than under the inunction method at home. The beneficial effects of the hot baths are probably as much overrated by the bath physicians as they are often underestimated by the physicians away, self-interest in both cases modifying the advice given.

Dr. Morrow stated that the chief peculiarity of the treatment at the Springs consisted in the activity and energy of mercurialization and iodization; crowding the system with these drugs and then endeavoring by hot baths and drinks to float them out through the skin and kidneys. This he deemed unscientific and irrational. The attempt to expel the syphilitic virus by therapeutic violence should be regarded as a step backward—a return to the practice of our forefathers.

The good results of the Hot Springs treatment he regarded as chiefly due to the change of air and scene, the freedom from business cares, and the fact that the patient made it his business to pursue a methodic treatment.

Dr. Bulkley said that he, personally, had never been obliged to send any of his many syphilitic patients to the Hot Springs. Many of his cases had been very bad ones, but in his experience they had yielded just as well to proper treatment in New York as at the Springs, and the use of hot water was just as beneficial in one place as in the other.

Other speakers attributed the good results at the Springs to the favorable hygienic surroundings and the absolute rest attained, and not to any virtue of the water itself. It was generally agreed that the early stages of syphilis were not well handled at the Springs, many of the patients being given mercury with opium, thus locking up the secretions, and the patients did badly afterward, being especially apt to suffer from tubercular ulcerations. The mixed treatment was also given from the beginning, which quickly controlled the evidences of the disease without curing them. If the iodide of potassium was given early, it not only did no real good, so far as the malady was concerned, but might actually require much larger doses later in the disease than would have been necessary if none had been given early. — *St. Louis Weekly Med. Review*, Feb. 15, 1890.

The Testicle in Ancient Pharmacy.

Dr. Archie Stockwell writes an elaborate historical and critical article in the *Therapeutic Gazette* regarding the subject of testicular secretion in therapeutics. It is not surprising that in olden times, when every conceivable agent, from tongue of snake to eye of bat, was put into pharmacy, that the sexual organs should also be utilized. As a matter of fact, Dr. Stockwell has succeeded in finding a great number of references to the use of the testicles of various animals in the cure of disease. We cannot repose the fullest confidence in Dr. Stockwell's historical accuracy or soundness of judgment, for he informs us that "we now know" that Socrates was sentenced to death for his sexual crimes, and that the faults of Paracelsus were venial, and consisted, "like those of Pasteur," chiefly of "theatrical enunciation and denunciation, of the drawing of conclusions from imperfect data." If ever there was a liar and quack, it was Paracelsus. However, he anticipated Brown-Séquard, for we are told that out of *sperma hominis* he made his homunculus, and asserted that "it was good against the imbecility of the instruments of generation." In the *Hortulis Genialis* of Baricellus, Genoa, 1620, is found a receipt for sexual rejuvenescence, the principal ingredient of which is the testicle of the wild boar; and a parallel prescription is offered in a work by Elzear Blaze, one hundred and twenty years later.

During the seventeenth century reproductive products, as obtained from mammals, birds and fishes, still enjoyed an enviable reputation as cerebro-spinal and genital excitants; they were especially endowed with specific attributes in diseases of mucous membranes, or those due to nervous derangements, such as "the falling sickness," chorea and neurasthenias. They were, however, more generally employed to restore sexual vigor and increase virility, and found a prominent place in the London Pharmacopœia as issued by the Fellows of the Royal College of Physicians in 1676, and also in Salmon's "New London Dispensatory" of 1684.

In the eighteenth century most animal remedies were dropped from the Pharmacopœia, and the testicles among them. It is very evident that they were recommended and used in ancient times on purely fanciful grounds, and that, as administered, they could have had no more physiological effect than so much dried albumin. The leucomaïne or ptomaïne, thought to be in the fresh juice, and asserted to be represented by a substance called "spermine," must be destroyed by drying, heating and addition of various chemical agents. The administration of testicles in diseases has in the past been only a kind of offshoot of phallic worship, and the modern use of testicular secretion seems to be of much the same character.—*N. Y. Medical Record*, Feb. 15, 1890.

Treatment of Obesity.

In an article on the Physiological Treatment of Obesity in the *N. Y. Medical Record*, Feb. 15, 1890, Dr. Walter Mendelson gives the following diet list made up as an average of two by Oertel and somewhat modified for American habits. Such a list is only to serve as a *general guide* to the patient to whom it is to be given. No absolutely hard-and-fast rules can be laid down, and patients under treatment should be seen—and weighed—from time to time; increasing one kind of food and diminishing another as occasion demands.

Breakfast: 1 cup (6 ozs.) tea or coffee, with milk and sugar. Bread, 2½ ozs. (2 or 3 slices). Butter, ½ oz. 1 egg or 1½ oz. meat.

Dinner: Meat or fish, 7 ozs. Green vegetables, 2 ozs. (spinach, cabbage, string beans, asparagus, tomatoes, beet tops, etc.) Farinaceous dishes, 3½ ozs. (potatoes, rice,

hominy, macaroni, etc.), or these may be omitted and a corresponding amount of green vegetables substituted. Salad, with plain dressing, 1 oz. Fruit, 3½ ozs. Water, sparingly.

Supper or Lunch: 2 eggs, or lean meat, 5 ozs. Salad (radishes, pickles, etc.), ¾ oz. Bread, ¾ oz. (1 slice). Fruit, 3½ ozs. Or fruit may be omitted and bread, 2 ozs., substituted. Fluids (tea, coffee, etc.), 8 ozs. No beer, ale, cider, champagne, sweet wines and spirits. Claret and hock in great moderation. Milk, except as an addition to tea or coffee, only occasionally. Eat no rich gravies, and nothing fried. Patients should always feel *better*—never worse—under treatment. Lassitude and fatigue are signs that the muscular tissue, as well as the fat, is being reduced, and that more non-nitrogenous food must then be allowed.

Dr. Mendelson says: Never yield to the wishes of the patient to grow thin *quickly*. All reforms, to be lasting and beneficial, must be slow in action, they must be the result of education, they must be a growth from within, not an impress from without. And the cells of the body, in their infinite diversity of occupation resembling the citizens of a state, can by slow degrees be habituated to better things, to change their vicious mode of action to one harmonious with the welfare of the commonwealth. And when this education has once been established, continuance becomes a mere habit.

Iodoform Direct from Seaweed.

The *Chemist and Druggist* states that there has been started recently at Poterie-de-Belbeuf, Rouen, the manufacture of iodoform direct from the waters of lixiviation from varech. The clear desulphurized solution is thoroughly beaten with mechanical agitators after the addition of a certain proportion of caustic soda, and the iodides are transformed into iodoform by adding acetone and hypochlorite of soda. The iodoform which is precipitated is washed, dried and crystallized from alcohol or other suitable liquid. It is maintained that the persistent and disagreeable odor of iodoform is due to the use of alcohol in its manufacture, iodine being liberated, and rendering possible the formation of iodized organic bodies as by-products which are of strong odor. Acetone-iodoform is made without the liberation of iodine, and can be produced in very dilute solutions, both conditions being highly favorable to the production of an absolute and inodorous iodoform.—*American Druggist*, Feb., 1890.

Treatment of Hip-Joint Disease.

In the *New York Medical Journal*, Feb. 15, 1890, Dr. John Ridlon has an interesting article on the treatment of hip-joint disease, in which he says:

The subject of treatment of hip-joint disease is narrowed down to fixation and traction. If traction is to be used at all, it should be constant and uninterrupted, and in one and the same line. Traction at a right line at one time and at a right angle at another, as is permitted by most forms of traction apparatus, cannot be free from harm; and the push-and-pull action of all traction hip-splints during locomotion must be seriously condemned. Splints, to be sure, have been devised to the end of eliminating this pumping action at the joint, but, since they are neither used by their authors nor by any one else, their merit does not call for consideration.

As to the value of fixation, we are pretty nearly a unit. The old "American method" of motion without friction has passed away—*requiescat in pace*—and a new American school has arisen. We are members of that school. We believe in fixation first, last and all the time. We believe in traction, too, while there is pain from voluntary muscular spasm—traction with the patient in the recumbent position—traction constant and uninterrupted. But traction during locomotion as given by the traction hip-splint? That is a question that will bear some further discussion.

An inquiry into the results of any plan of treatment should, at the least, consider the mortality; the duration of treatment; the general health during treatment; and, bearing directly upon this, the length of time patients are confined to bed; the frequency of abscesses which go on to operative interference or spontaneous opening; the ultimate condition of the limb as to usefulness; the amount of actual shortening—*i. e.*, shortening due to erosion, displacement and arrest of growth; the amount of apparent shortening—*i. e.*, the actual shortening plus the shortening dependent upon flexion and abduction; and, finally, the degree of motion at the joint.

Reliable statistics of any considerable

number of cases treated by immobilization are wanting. Although Thomas's splint has now for some time been in pretty general use in England, but few patients have been treated by others than himself in a satisfactory way. Mr. Thomas's own cases have been in private practice, and records have been kept of only those showing some special point of interest. The records of his cases to which I have access give the time in bed from nine to fifty-two weeks, the average being twenty-two weeks; the duration of treatment, from twelve to thirty-six months, the average being twenty-one months. Abscesses are not infrequent, but I have no data on that point. He says that all patients that recover do so without flexion and without abduction. Shortening is present when there has been erosion and when the growth of the limb has been arrested by the disease. Ankylosis is only found when the inflammatory process has been exceptionally destructive. No one any longer maintains that the prolonged immobility to which he subjects his patients is in itself productive of ankylosis.

It has been my fortune to treat, or share in the treatment of, upward of 1,100 cases of hip disease with the long traction hip-splint. The convictions which I am about to express are founded upon a study of those cases, taken together with the statistics above quoted and others bearing in the same direction.

In conclusion, then, I would say that it does not appear to me that sufficient evidence has been presented to demonstrate that the results of the use of the traction hip-splint are any better than, or as good as, those obtained by any purely fixative apparatus; nor does it appear that the results are any better than those where the "expectant treatment" or no treatment has been employed; nor has it been shown that the use of the traction splint shortens the disease. On the other hand, the statistics quoted have shown that it does *not* prevent actual shortening from arrested growth, from erosion of bone, and from subluxation; that it does *not* prevent apparent shortening from flexion and abduction; and that it does *not* prevent stiffness at the joint. It has also been shown to *cause* in-knee and super-extension at the knee by stretching the ligaments, and weakness and talipes equinus at the ankle.

The most often repeated, if not the only, charges made by the tractionists against pure fixation (without traction) is that it does not so quickly relieve the pain—a point yet not proved, and that it favors actual shortening from erosion of bone. The statement that pure fixation removes apparent shortening by preventing flexion and abduction they do not object to. And the statement that fixation does not induce ankylosis in a tubercular joint is no longer questioned.

Routine treatment of any kind should be condemned, whether it be traction or fixation, or simply making the leg a pendent member, or waiting for Nature's cure. Each case should be treated on its merits, and its indications should be followed in so far as the surrounding circumstances and the means at hand will permit. As Dr. Charles Fayette Taylor once so aptly said: "It is absurd to speak of an instrument for hip disease. There can be no one complete instrument for hip disease."

Gastric Juice as a Germicide.

Drs. Straus and Wurtz have conducted a series of experiments in order to ascertain the action of the gastric juice on the bacilli of tubercle, charbon, typhoid and cholera morbus. The gastric juice from man, dogs and sheep was selected for the experiments. It was found that digestion for a few hours at a temperature of 100° F. destroyed all the germs. The bacillus anthracis was killed in half an hour, the bacillus of typhoid and cholera in under three hours, whilst the bacillus of tubercle bore digestion for six hours, under which time it was still capable of provoking general tubercular infection. Even when digested for from eight to twelve hours the bacillus was still capable of producing a local tubercular abscess, not followed by general infection. Over twelve hours' digestion destroyed it completely. The germicide influence of gastric juice appears to be due to its acid contents, as it was found that hydrochloric acid alone, dissolved in water in the same proportion as it is in gastric juice, proved as active a destroyer of the bacilli. The pepsin appears to have no influence on the germs. Drs. Straus and Wurtz, who publish their researches in *Archives de Médecine Expérimentale*, wisely remind their readers that the germs, when protected by animal and vegetable tissues and introduced into the stomach in ordinary nutrition, are not exposed to so direct and prolonged action of the acid constituents of gastric juice as in these experiments.—*British Medical Journal*, Feb. 1, 1890.

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CHARLES W. DULLES, M.D.,
EDITOR AND PUBLISHER.

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A HYDROPHOBIA STORY EXPLODED.

Some time ago a paragraph was going the rounds and appeared in the *Medical News* of February 8, 1890, in the following shape:

"*Hydrophobia from the bite of a cat.*—Principal Clark, of the Albion Academy, at Milton, Wisconsin, is reported to have died from hydrophobia, resulting from the bite of a cat ten months previously. The immediate effects of the bite appeared to be trivial, but the hydrophobia symptoms, when they declared themselves recently, were unmistakable and death most painful."

Having an interest in this subject of so-called hydrophobia, the Editor of the REPORTER wrote to a correspondent in Wisconsin to get the facts of the case, if possible. The result has been the receipt of a letter, dated Milton, Wis., February 17, 1890, addressed to Dr. E. C. Helm, of Beloit, Wis., by a sister of Professor Charles A. Clarke. The letter states that: "Professor Clarke, of Albion, did not die of hydrophobia, as was reported; he died of cerebral meningitis. True, he had a cat-bite; but the cat was not mad; and he had suffered ever since with blood poison, which showed itself in abscesses, he having, in six months, thirty large and small abscesses on hand, arms and neck. Just how much the cat-bite had to do with his death we cannot tell; but we are very sure he did not die of hydrophobia. There was no attempt to bite, nor aversion to water; but he drank water freely all through his sickness, and enjoyed being bathed as much as any sick person."

This statement leaves nothing of the assertions that the immediate effects of the cat-bite were trivial, and that the hydrophobic symptoms were unmistakable; and it explodes a story which has gone abroad with the sanction of a well-known and respected medical journal.

It would be fortunate for the world if it were possible to get so quickly at the truth of all reported cases of hydrophobia; but the readers of the REPORTER may be glad to know that years of experience in following up just such stories as this one has led the Editor of this journal to regard them with almost absolute incredulity. Cases of seeming hydrophobia are very rare in this country, and everywhere, except where the popular mind is filled with thoughts of this disorder by such notions as are fostered in France and other countries where Pasteur Institutes are established.

It is to be hoped that the founding of a Pasteur Institute in New York, which has been announced with foolish and alarming details in the newspapers, may not lead to a multiplication of cases of so-called hydrophobia; but that our land may long share the comparative immunity which is enjoyed by all parts of the world where the subject is not too much discussed, and where incredulity eliminates the greatest of all the causes of its development.

REVIEW OF THE EPIDEMIC OF GRIPPE.

At the meeting of the Illinois State Board of Health, held February 13, 1890, Dr. John H. Rauch, the Secretary, presented a report which contained an admirable review of the history and nature of the recent epidemic of "Grippe," which is of such great value that we present it—with certain modifications—to the readers of the REPORTER.

The first cases of the recent epidemic recognized in Europe were observed in St. Petersburg about the middle of October. At that time it was supposed that the prevalent epidemic had taken its origin in or about Wassali-Ostrow, southwest of St. Petersburg, and Kolomna, sixty-five miles southeast of Moscow, appearing in these regions and rapidly spreading north to the capital. Both these supposed points of its origin are in direct communication by railroad with St. Petersburg—Wassali-Ostrow being the nearest. Within three weeks after its appearance, one-half the population of St. Petersburg was rendered prostrate from its influence, and by November 12 it seems to have spread over the whole of European Russia. In Asia it was first noticed in Tomsk, a commercial town in Central Siberia, and appeared in the Caucaucus about November 11. It is yet too soon, on account of meagre information, to determine where the epidemic really took its origin. Thence it spread into Finland and Eastern Prussia, and in the beginning of the month of November invaded Berlin, the first cases being observed at the City Hospital in Friedrichstein; thence it spread to Vienna and Paris. By December 20 it was prevailing in nearly all the capitals and large cities of continental Europe. It was undoubtedly introduced into England early in December, though it was not clearly recognized until December 18, and then the epidemic seemed to many observers more like dengue than influenza. Up to that time the disease was by no means so prevalent and marked in England as on the continent. About January 1 it was reported that the disease was on the decline on the continent, but not in Great Britain and Ireland. During the month of December the influenza prevailed quite extensively among horses in London.

The disease was first recognized in Boston on December 17, in New York December 20, in Philadelphia and Chicago about December 23.

The epidemic in this continent has extended from the Atlantic to the Pacific and as far south as Mexico and Central America. It practically spread over Europe and a large portion of North America within ninety days, extending over a greater area, and with greater rapidity than any epidemic of which we have a record. It made its appearance in the large cities first, and afterwards extended to their immediate neighborhood. It appears as though there must have been some communication, although it is said to have appeared simultaneously in different localities.

In March, 1843, influenza appeared in Germany and England; in April, in France; in June, in the New England States and New York; in July, in Pennsylvania, and a portion of the Southern States, and by August it had extended over almost every part of the United States. Thus, in 1843, it consumed six months in spreading to and through this country (the area of which was limited at that time), while the present epidemic has extended from St. Petersburg to the Pacific Coast and Central America, within three months.

In December, 1850, influenza prevailed in the West Indies, Peru and Chili, spreading from Lima along the coast to Valparaiso, and in January, 1851, in California. It was at no other point in the United States, and the infection must have been received from the Pacific coast of South America. In August, 1857, it prevailed in Central America; in September, on the coasts of Chili and Peru, and VanCouvers Island, and nowhere else in North America. In December, 1861, there was a local epidemic in Philadelphia.

In 1873, from January to March, influenza prevailed generally throughout the United States, and was recognized nowhere else. In the winter of 1874–75, it spread over the Western and Eastern hemispheres, prevailing in nearly all the States of the Union, and also in Germany, Austria, Sweden and France. This was the last appearance of this disease until the present time. It will be observed that when it last made its appearance in this country, it did not spread to the Pacific coast of North America.

Since the year 1173, to the present time, there have been sixty-two epidemics of so-called influenza in Europe, or one in about every eleven years. During this period it assumed a pandemic form fifteen times. It made its first appearance in North America, in 1627, and to the present time we have had nineteen epidemics, or one in every fourteen years, assuming a pandemic form ten times. In several of these pandemics the disease extended, not only over the Eastern hemisphere, but it reached also to the Western; in others, it remained limited to the former; while pandemics are known to have occurred exclusively in the Western hemisphere.

When it first made its appearance in October, 1889, on the continent of Europe, the nature of the disease was in doubt, many of the medical authorities in St. Petersburg, Berlin, Vienna, Paris, and even in England, and also in this country, taking the view that the present pandemic is a modified form of dengue, the result of temperature; dengue being practically a disease of warm weather and subtropical countries. This so-called influenza, when it appeared in different localities, did not present all the typical features of former epidemics, but did manifest a number of very marked symptoms that are found in dengue. It was also supposed by some that the influenza took its origin from the dengue, owing to the fact that the dengue was epidemic in Constantinople and points in Asia Minor and Southern Europe during the months of July, August, September and October, and is prevailing even at the present time in the southern part of Europe; and that the dengue spreading northward from Turkey to Russia, changed in its type as it progressed north, until it assumed the present form.

The disease began to show its influence upon the death rate in Boston in the week ending December 21, increasing in its effect until the week ending January 11, when it reached its height. Taking the number of deaths the week before the malady began to manifest its effect to the week ending February 8 as a basis, it will appear that 885 deaths occurred from this cause and the meteorological conditions that obtained; also that of this number there was an increase of 136 deaths under five years. This increase of deaths was mainly among diseases of the respiratory organs, those suffering from chronic diseases and the weak and aged. It is barely possible that the disease manifested itself in the week ending December 21 in New York City. But its rapid increase during the next two weeks is more marked than in either of the two preceding cities, reaching its highest point January 11. From its first appearance to the week ending February 8, 2,503 deaths may be attributed to this cause—of these there were only 512 under five years. In Philadelphia, the disease manifested itself in the week ending December 28, and culminated in the week ending January 18. From December 28 to February 8, there was an increase of 1,344 deaths due to this disease. Of these there was an increase of only 111 cases under five years. In Cleveland the effect of the diseases was manifest in the week ended January 4, culminating about January 25, when the mean weekly temperature was lowest. From the week ended January 4 to the week ended February 8, 363 deaths may be ascribed to the influenza; of these 129 were under five years of age. As in other cities this increase is mainly among pulmonary diseases. In Chicago, the pandemic first made its effect manifest in the

death rate for the week ending December 28 and reached the highest point January 25, when also the mean temperature was the lowest that had been observed during the present winter. It was two weeks longer culminating than in Boston. From the week ending December 28 to the week ending February 8, 1,500 deaths may be attributed to the malady; of these there were 774 under five years of age, a number much greater proportionately than in any other city. Is there a greater infantile population in Chicago than in other cities? Nearly two-thirds of the deaths were caused by diseases of the respiratory organs.

During the week ending January 11 the malady made itself manifest in Baltimore in the increase in the death rate, culminating on the 18th of the same month. From its first appearance to the week ending February 8, there was an increase of 153 deaths, and of these 119 were under five years. In Washington its effect was noticed in the week ending January 11, culminating in the week ending January 25, and causing 178 deaths. In Cincinnati, it did not show its effect on the death rate until the week ending January 11, and its culminating point was reached in the week ending January 25. There was an increase of 155 deaths from the week ending January 11 to the week ending February 8. In St. Louis, while cases occurred about January 1, its influence on life was not manifest until the 18th. From the week ending January 18 to that ending February 8, 192 deaths may be attributed to the disease, and for the week ending February 1, the deaths at St. Louis were greater, while in other cities where the disease had prevailed for some time, the number had greatly decreased. As a whole the epidemic was mild and St. Louis did not suffer in comparison with other cities at home and abroad.

Influenza made its appearance at Charleston, South Carolina, and two deaths occurred from this cause after January 1 at New Orleans.

In Boston, New York, Philadelphia and Chicago the effect of the disease was marked; at Baltimore, Washington, Cincinnati and St. Louis, a tier of more southerly cities, the fatality has not been so great, and the epidemic did not manifest its influence as early as in the northern cities. The percentage of increase of the death rate in the different cities from the time the disease manifested itself to February 8, is: Boston, 2.11; New York, 1.97; Philadelphia, 1.29; Cleveland, 1.51; Chicago, 1.39; Baltimore, .305; Washington, .791; Cincinnati, .688; St. Louis, .426. It is probable that about 12,000 people have died within the last seven weeks from causes due directly or indirectly to the prevalence of this disease, a greater fatality than has occurred in the United States from any epidemic, in the same length of time. Its fatality was equaled only once before, and that was during the autumn and winter of 1789–90.

On the continent of Europe, especially in several of the larger cities, the effect of the epidemic on the death rate is still marked.

One of the most distinguished medical authorities in St. Petersburg recently announced the firm conviction that cholera would follow the epidemic of influenza in Russia, as it had six times in the past. Dr. Hirsch, who is the best authority in the world on epidemics, is of the opinion that it was an accident, and Dr. Rauch agrees with him.

As so little is known with regard to this disease, Dr. Rauch thinks it very important that every effort should be made to secure information to elucidate the unsettled questions regarding its etiology and history. He suggests that a circular letter be addressed to the medical men of Illinois—and we would add that other places would probably furnish much larger material for study—asking for—

First—The dates of earliest occurrence of cases of influenza presenting distinctive characters (among which may especially be mentioned marked nervous depression, out

of proportion to the gravity of the catarrhal or other local symptoms, not infrequently beginning suddenly), or such as were the precursors of an extended prevalence of similar cases.

Second—Cases illustrating the introduction of the disease by importation; or (in the cases of institutions) from the outside; also cases illustrating its mode of propagation among mankind and animals by infection or otherwise; or cases in which its origin in imported infection could apparently be excluded—*e. g.*, in ships at sea.

Third—Cases in which the length of the period of incubation could be fixed.

Fourth—The number of cases that have proved directly fatal; fatal cases of diseases indirectly due to the epidemic influences; also the duration of the epidemic.

Such a line of investigation is being pursued by the Local Government Board of Great Britain, and it seems desirable that the health authorities of the various States should conduct similar inquiries.

A NATIONAL DEPARTMENT OF PUBLIC HEALTH.

As will be seen in the Notes and Comments of this number of the REPORTER, it is proposed to establish a "Bureau of Animal Industry," for the suppression of contagious diseases among domestic animals, with rather broad powers, and to be under a chief who shall be a veterinary surgeon.

It is to be hoped, of course, that some sensible way may be found to regulate matters of health in connection with cattle in the United States; but we doubt that this is the best way to get at the matter. In our opinion the subject should be committed to some of the existing departments, and made a part of a general system of sanitary supervision for the whole country. We regard it as unwise at this time to establish a bureau for the diseases of animals, which might be hard to force into the bounds of a larger scheme at a future date.

We would approve of legislation conferring on the Marine Hospital Service supervision over all matters of public health, in the hope that before long this would lead to the establishment of a Department of Public Health, fully equipped and placed on a footing equal to that of any of the existing departments. Certainly the health interests of the country are worthy of being represented in the Cabinet; and they should be so represented as soon as there is any general agreement among medical men as to the best way in which this representation can be carried out.

A Department of Public Health seems to us to be one of the greatest needs of our great country to-day; and we invite our colleagues of the medical journals to discuss the means by which such a Department may be established and maintained as part of the National Government.

BOOK REVIEWS.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the REPORTER.]

TRANSACTIONS OF THE ASSOCIATION OF AMERICAN PHYSICIANS. Fourth Session, held at Washington, D. C., September 18, 19 and 20, 1889. Volume IV. 8vo, pp. xx, 381. Philadelphia: 1889.

Physicians have come to look to the Association of American Physicians for the best exposition of American medical thought and teaching. The contents of the present volume fully sustain the reputation of the Association. Following the President's Address, by Dr. Minot, of Boston, is a very instructive paper by Dr. Folsom, also of Boston, on "The Early Stage of General Paralysis." The author shows admirably the insidiousness of the disease. He finds that the earliest symptoms are those of cerebral weakness. The patient fails in energy and in mental grasp, becomes careless and indifferent about matters concerning which he was before punctilious, is irritable and emotional, and at times has a disregard for the proprieties of life. Dr. James Stewart, of Montreal, has an interesting paper on the rare disease known as "Tetany." Dr. A. Brayton Ball follows with a paper on "Thrombosis of the Cerebral Sinuses and Veins;" while Samuel C. Busey, of Washington, discusses "Effusions of Chyle, etc., into the Serous Cavities." Dr. J. F. A. Adams, of Pittsfield, in a paper on the "Substitutes for Opium in Chronic Diseases," reviews the recent antipyretics, hypnotics and antiseptic remedies, and indicates the way in which they may be usefully employed to substitute opium. Dr. D. W. Prentiss, of Washington, D. C., contributes an elaborate "Report of Three Cases of Remarkably Slow Pulse," with brief

abstracts of ninety-one other cases. Dr. F. P. Henry, of Philadelphia, treats of the relations between the various anemias, and Dr. Forchheimer, of Cincinnati, of the "Relations of Anemia to Chlorosis." Dr. S. Weir Mitchell contributes a short paper on "Subjective False Sensations of Cold," and reports seven illustrative cases. Dr. G. M. Garland has an interesting paper on "Gastric Neurasthenia." All the patients were women, all were of dark complexion, in all feeding by the mouth had to be abandoned and rectal enemata substituted. Morphine subcutaneously was the only drug found of service. Dr. P. Gervais Robinson, of St. Louis, in his paper on "The Contagium of Diphtheria," states his belief that diphtheria is a specific contagious disease, due to the morbid influence of a distinct micro-organism on the tissues of the body. Dr. James J. Putnam, of Cambridge, Mass., contributes an instructive paper on "The Frequency of Lead in the Urine." Fifty-seven analyses were made, and lead was found in ten, or 17.5 per cent. Dr. Harold C. Ernst, of Boston, discusses the "Danger from the Milk of Tuberculous Cows." One hundred and fourteen samples of milk, from thirty-six different cows were examined, all showing more or less distinct signs of tuberculosis of the lungs or elsewhere, but none of them having marked signs of disease of the udder of any kind. The tubercle bacillus was found in 31.5 per cent. of the samples examined. Dr. E. L. Trudeau, of Saranac Lake, N. Y., speaks of "Hot Air Inhalations in Pulmonary Tuberculosis," and concludes that their therapeutic value is doubtful. Dr. E. N. Whittier, of Boston, has a paper on "Primary Malignant Disease of the Duodenum," and gives notes of thirteen cases. The next paper, on "Primary Cancer of the Gall-bladder and Bile-ducts," by Dr. J. H. Musser, of Philadelphia, is one of the most valuable papers in the present volume, and has perhaps involved more labor in its production than any other. The author has been able to collect and present abstracts of one hundred cases of primary cancer of the gall-bladder, and of eighteen cases of primary cancer of the ducts. These form the basis of very instructive conclusions. The concluding paper is on the "Heart and Kidneys in Bright's Disease," by H. F. Formad, of Philadelphia. The paper is based upon the study of three hundred autopsies.

On the whole, the present volume is a very satisfactory one, both in its subject-matter and in the style in which it has been printed and bound.

A HAND-BOOK OF DERMATOLOGY. For the use of students. By A. H. Ohmann-Dumesnil, A. M., M. D., Professor of Dermatology, St. Louis College of Physicians and Surgeons, etc. Illustrated. 12mo, pp. viii, 368. St. Louis: St. Louis Medical and Surgical Journal Publishing Co., 1889.

This little book has been written by Dr. Dumesnil for the purpose of furnishing the students at the St. Louis College of Physicians and Surgeons with a *resume* of the lectures he delivers to them. The classification of diseases adopted is essentially that of the American Dermatological Association. Each disease is briefly defined, the salient points in its symptomatology presented, the causes and probable pathology indicated, and the treatment given. The author has wisely avoided the discussion of minute pathological details and of questions upon which dermatologists are not yet in harmony. He has also had the good judgment to give a number of prescriptions: these are always helpful, and especially to students.

In such a hand-book as the present one it is almost inevitable that there will be omissions and inaccuracies of statement. This fault Dr. Dumesnil's book has; but it fulfills a useful purpose, and no doubt will be improved in a subsequent edition. It is to be regretted that it has not been subjected to more careful proof-reading.

Literary Notes.

—Professor Arlt's students will learn with pleasure that Prof. Fuchs has offered to the world a text-book on the eye more complete than his predecessor, but being a pupil of Arlt, as well as his successor as a teacher, the general principle and design of the work is the same. The clinical work is by the author, and truly worthy of the school. This is likely to become an extensively used text-book.

—The Secretary of the Illustrated Medical News Company, of London, announces, under date of February 6, 1890, that, owing to various causes, the Directors of the Company have decided to discontinue the publication of the *Illustrated Medical News*.

—A new periodical, entitled *Revue d' Orthopedie*, will shortly appear in Paris, under the editorship of Drs. H. Petit and Kirmisson. It is also announced that a journal dealing with massage and electro-therapeutics is about to be published in Paris, under the direction of Dr. A. S. Weber.

—Three very timely and important subjects are treated in the March *Century* by specialists. The first is the subject of Municipal Government, Dr. Albert Shaw, describing the workings of the local government of Glasgow, one of the world's model cities in this respect. The subject of Irrigation is treated in the first of a series of three articles by Professor Powell, the Director of the United States Geological Survey. The third great subject is discussed in a paper by Professor Fisher on "The Nature and Method of Revelation." The same number of *The Century* has editorials on "Municipal Government," "Our Sins Against France," and "University Extension."

Notes and Comments.

Proposed Bureau of Animal Industry.

We hear from Washington, under date of February 27, that Senator Paddock has introduced in the Senate a bill for the establishment of a bureau of animal industry, to prevent the exportation of diseased cattle and to provide for the suppression and extirpation of pleuro-pneumonia and other contagious diseases among domestic animals.

This bill, which is intended as a substitute for various measures on the same topic that have been before the Senate, provides that, for the purpose of better promoting the exportation of cattle and live stock from the United States and facilitating the commerce in cattle among the States, and for removing

obstructions to such commerce with foreign nations occasioned by the existence of infectious diseases among cattle and other live stock, a bureau of animal industry should be established, under a chief, who shall be a veterinary surgeon, and whose duty it shall be to inquire into the cause of all communicable diseases among live stock. The Secretary shall prepare and enforce rules for the suppression and extirpation of all diseases of cattle, and especially of pleuro-pneumonia. Cattle so affected shall not be transported from one State to another. The bill further provides that, in order to promote the exportation of live stock, the Secretary shall make special investigation as to the existence of pleuro-pneumonia along the dividing lines between the United States and Canada, and along the lines of transportation from all parts of the country to ports from which live stock are exported, and shall establish regulations concerning the exportation of such stock.

Quick Preparation of Surgical Gauzes.

H. Helbing suggests in the *Pharmaceutical Journal* the following mode of preparing surgical gauzes at short notice:

Good raw material is of the first importance in preparing gauzes. This should be perfectly free from fat, should have at least thirty threads each way in a square inch, and should weigh about ten drachms to the square yard. This is about the average for good stuff, though if we examine the various gauzes on the market we shall find that only the very best houses furnish a material of this standard. He has examined a number of samples and gives a few of the figures:

Samples.	Weight of square yard.	Number of threads per square inch.
1	12 drachms.	44 x 44
2	10 "	31 x 31
3	7 "	15 x 15
4	6 "	17 x 17
5	5½ "	26 x 26
6	5 "	27 x 17

Gauze sold by measure is sold on an entirely wrong principle, as, unless the buyer knows the weight and the number of threads, he cannot tell what he gets for his money. If the samples given were all made into 10 per cent. iodoform gauze, Nos. 1 and 2 would contain nearly double the amount of iodoform in each square yard of any of the others, and if when finished they were charged at double the rate of the others it would only be a fair price. This shows how important it is when procuring such articles to ascertain the weight of the gauze and the number of threads. Of course the gauze should also be tested to see that it contains the percentage of antiseptic claimed.

Gauzes are usually kept ready by the instrument makers, but it may sometimes happen that a medical man may want a gauze for a case of emergency. In such urgent cases it is an advantage to be able to prepare the gauze one's self, and this can be done in a few minutes by following these directions:

Take the necessary quantity of raw material, and weigh out a corresponding amount of the antiseptic. Saturate the material with ether or a mixture of alcohol and ether, in which the antiseptic has been dissolved, one ounce of the material requiring about three ounces of liquid; wring out the gauze several times and again saturate it; so as to insure uniform impregnation, and dry by simply unfolding it and shaking a few times. It is then ready for use.

In this manner all the different gauzes may be prepared—carbolic, corrosive sublimate, iodoform, thymol, eucalyptol, or any other. —*American Druggist*, Feb., 1890.

Vaginal Tampons.

In the *Kansas Medical Journal*, February, 1890, Dr. J. C. McClintock, of Topeka, says that as tampons are usually made by tying a string about its middle, the patient will often complain of two things: First, that the cotton is rough and irritating; second, that the tampon, if of large size, is difficult to remove. This is explained, when we realize that the long axis of the tampon is at right angles with the long axis of the vagina. Absorbent cotton is used, because it looks clean and is clean; but plain, unglazed cotton batting, which can be bought at dry-goods stores for fifteen cents a roll, is more elastic than the absorbent and will not pack into hard balls when soaked in glycerine. It can be sterilized by being heated in an oven to 240 degrees Fahrenheit.

For tampons applied in uterine and special ovarian displacements, a cheap kind of cosmoline, very thick and heavy, will be preferable to the more fluid petroleum preparations. The former will not be absorbed by the cotton, nor will the tampons get hard, and consequently they will retain their place better and longer, and will be soothing to

an inflamed vagina. If an antiseptic and depleting effect is wanted, the cotton can be soaked in boro-glyceride, the vagina first having been washed out with an antiseptic solution. Antiseptic sheep's wool can now be obtained in drug stores. It is very light and elastic and will not retain the secretions as does the cotton. Its disadvantages are its irritating effect, and, after a time, its disagreeable odor.

A properly constructed cotton tampon is tied with coarse, white knitting silk, which is much more comfortable to the patient than the cotton cord. If for support the cotton should be rolled in a layer or strip of absorbent cotton—not around the cotton—and then tied at one end of the roll or cylinder in a surgeon's knot. One should always remember, after drawing taut the first double knot, to carry the right hand around to the left, and to give it a quick pull in that direction, which secures the knot from slipping until the second knot can be made. When the cord is drawn upon, the long axis of the tampon will correspond with the long axis of the vagina, and consequently it may be removed with comparative ease. The silk cord should not be over twelve inches long and should not project from the vulva more than three inches, since certain movements of the patient, in the sitting posture, will frequently drag on a long string and tend to displace the tampon.

A much better tampon for support is made of antiseptic sheep's wool rolled in a cylindrical form, and a sheet of absorbent cotton, covering what one might call the upper end, and drawn down on its sides, leaving the wool exposed and projecting only at the lower end. It is tied near its upper end with two or three loops thrown over the body of the tampon, the last near its lower end.

This has the advantage of the preceding, and its shape may be varied as desired, making it round or flat or broad at the top, to suit the wants of any case. The wool in the centre will not absorb and retain the secretions, but acts as a drainage-tube, and having the wool exposed below, it will not slip as does cotton, and is more likely to retain its place longer.

Tampons as usually applied to control hemorrhage are totally inefficient, other means being more scientific. If used for this purpose, however, they should be packed in the vagina, through the Sims' speculum, according to the method of Emmett, using a large quantity, in fact filling the entire pelvis, first having emptied the bladder, and, if time will permit, the rectum also. Pajot's directions are to use at least a hat full of pledgets.

Influenza a Pneumogastric Neurosis.

M. Vovart, of Bordeaux, looks upon influenza as a neurosis of the pneumogastric nerve. Huchard (*Revue générale de clinique et de thérapeutique*, Jan. 16, 1890) states that the action of the poison falls upon the central nervous system and upon the peripheral nerves, attacking the pneumogastric in its several branches most violently, producing, through its cardiac branch, syncope, arrhythmia, intermittence, bradycardia, tachycardia, anginiform difficulty and sudden death; through its pulmonary branch, pneumonia, hæmoptoic pulmonary congestion, pulmonary œdema, bronchial paralysis and a pertussis-like cough, thought to be due to compression of the nerve by enlarged tracheo-bronchial glands; and, through its gastric branch, vomiting and various gastro-intestinal troubles.—*New York Medical Journal*, Feb. 22, 1890.

Abuse of Massage for Women.

In the *Medical Record*, Feb. 22, 1890, an anonymous correspondent writes: A woman wants to protest against the importance attached to the congestion of the mammary gland by Dr. Fowler, in a recent issue of your paper. Of course a woman has congested milk-glands, and, of course, she has a congested uterus and ovaries at times, and, of course, these several congestions can be relieved by menstruation, for instance, and in other ways. To assume that orgasm will dissipate these congestions, there is surely nothing new about that. To artificially induce orgasm for their relief is, however, playing with fire. Can you imagine that the cure will be permanent in the case of any of the hysterical girls to whom the doctor has referred? And if not, what then? Must the doctor be called in again and again for the relief of the mysterious symptoms? And must the girl degenerate into that most despicable creature—the woman who cannot live without her physician? A sentiment of respect, even in Dr. Fowler's mind, must follow the girl who would not have her "lump" treated.

So long as pelvic massage was confined to cases of pathological alterations in structure and function, we listened in patience, but when it comes to be applied for the relief of a physiological congestion, and applied to innocent, ignorant young girls, it is time to call for a halt. The practice then assumes a plane not perceptibly different from that of the masseuse who cures nervous disorders in men by similar means.

If you asked me what do women do with these cases, I would tell you that we first explain to the girl herself the character of her ailment. We disabuse her mind of the idea that there is anything wrong or immoral about the condition, but tell her that, on the contrary, it is a normal expression of her womanhood. We tell her further that it is a temporary condition; that, at the worst, it will pass over in a little time, and we tell her of various means by which it may be dissipated or avoided. One of these is physical exercise. An exhaustive gymnastic course might be prescribed. The Swedish movements for the relief of pelvic congestion are worth some study in this connection. Mental work is another great prophylactic against undue sexual irritability. Let her enter some competitive examination, take the lectures at the Barnard, or some special course of instruction. Cheerful companionship should be in all this insisted upon. Among working-girls persistent eroticism is so rare as to almost invariably indicate an unsound mind, which is, of course, the ordinary tendency of these cases.

The question of women physicians in asylums follows this same line of argument. The demented woman is highly erotic as a rule. To supply women for her immediate attendants is simply to diminish the disturbing influences likely to increase her mental instability. The necessity is not for a woman's attentions for gynecological treatment alone, but for all that presupposes close proximity in these cases.

Displacement of Internal Organs.

A most remarkable case of displacement of the vital organs of the body was revealed in the autopsy held Feb. 21, on an old inventor, who dropped dead in New York on Feb. 18. It was found that the heart, which was abnormally fat, had moved over to the right side of the chest; the stomach, spleen, pancreas and a greater portion of the large and small intestines had passed up into the left pleural cavity and considerably compressed the left lung. The heart, besides being displaced, was compressed, and the diaphragm had fallen into the abdomen. Some twenty years ago the man contracted hernia by a tree falling on him, and it is believed that the general displacement of those organs occurred at that time and existed ever since. The immediate cause of death was heart failure, though the displacement of the organs was tending to accelerate death.

Fissure of the Nipples.

The following will be found a valuable application in fissure of the nipples. It allays pain and promotes rapid healing:

℞	Saloli	ʒj
	Ætheris	fʒj
	Cocaini hydrochlor.	gr. ji
	Collodii	fʒv.

M.

Violet Mouth Water.

The *Seifenfabrikant* gives the following:

Tincture of benzoin	7 parts
Tincture of rhatany	30 "
Tincture of myrrh	60 "
Rose water	250 "
Tincture of orris root	500 "
Alcohol	250 "

—*Druggists' Circular*, Feb., 1890.

Estimation of Sugar by Fehling's Solution.

H. Causse suggests in the *Bull. Soc. Chim. and Jour. Chem. Soc.*, the addition of 4 C.c. of a 5-per-cent. solution of potassium ferrocyanide and 20 C.c. of water to each 10 C.c. of Fehling's solution employed. On running in the sugar solution to the boiling mixture, the potassium ferrocyanide dissolves the cuprous oxide as quickly as it is precipitated, and forms a colorless solution, thus rendering the exact point of decolorization more easily seen and preventing bumping.

Potassium ferrocyanide appears to be without action on hot or cold Fehling's solution. On cooling the liquid obtained after titration, it turns brown and deposits colorless crystals which the author intends to study.—*American Druggist*, Feb., 1890.

NEWS.

—On February 27, the Philadelphia Dental College graduated 114 dentists, who received their degrees in caps and gowns.

—In opening the Haverford College lecture course on February 25, Dr. D. Hayes Agnew gave a lecture on Preventive Medicine.

—Geheimrath Professor Otto Becker, a distinguished German ophthalmologist, died at Heidelberg February 7, 1890, at the age of sixty-one years.

—The examination of applicants for the positions of Resident Physicians at the Philadelphia Hospital will be held on Wednesday, April 9, at 11 A. M.

—The U. S. Senate on February 27, passed a bill making the salary of the Surgeon-General of the Marine Hospital Service $6,000 per annum.

—Dr. T. Wallace Simon, of Philadelphia, died in the German Hospital, February 21, from a fracture of the skull caused by a fall when he was in a state of intoxication.

—The bill introduced in Parliament to enable the County Council to purchase the rights and privileges of the eight companies that supply London with water has recently been withdrawn.

—The City Council, of Camden, N. J., on February 27, resolved to submit the Water bill recently passed by the Legislature to the voters at the coming municipal election for acceptance or rejection.

—The Johns Hopkins University, in Baltimore, celebrated its 14th anniversary February 22. The public exercises were held in the Mount Vernon Place Methodist Episcopal Church. Acting President Remsen presided, and made an address.

—News comes from Dorpat, Russia, of the death of Professor Eduard von Wahl, on January 17, 1890. Professor von Wahl was a surgeon of great ability, and well known throughout the world as an able and vigorous writer on surgical subjects.

—It has been decided to found a Dermatological Society at Vienna. A meeting with that object was held on February 6, under the presidency of Professor Kaposi, and the rules of the new society were approved. The meetings will be held once a fortnight.

—Dr. Hall, the new gymnasium instructor at Haverford College, Pennsylvania, has succeeded in arousing much interest in general athletics among the Haverfords, and many are now training for the spring sports. A new gymnasium is to be built next summer at a cost of about $45,000.

—Dr. Ricard, *agrégé* of the Faculty of Medicine of Paris, and hospital surgeon, was sent in the early part of February, by the Minister of Public Instruction, on a mission to Germany, to study the progress of surgery and the organization of the surgical services of the hospitals of the principal cities of the Empire.

—The influenza epidemic is on the wane in Italy. In a mild form it still prevails in the southern towns, but in the central and northern parts of the peninsula it has sunk to merely sporadic proportions. In Florence, indeed, where it appeared in greatest force, the lazaretto specially opened for it is now closed for want of inmates.

—The Secretary of State of Pennsylvania has notified the Norristown Board of Health that a Sanitary Convention will be held in Norristown some time in May next. All the prominent sanitarians of the United States will be invited to attend and participate in the discussion. The local Board will take some definite action at its meeting in March.

—The North Philadelphia Medical Society, after nearly a year's consideration of the subject, has concluded to establish a hospital at Tioga, and has rented a large stone dwelling for the purpose, where the necessary alterations will soon be made. The hospital will be called the North Philadelphia Hospital. Arrangements are being made to have six or twelve beds ready to begin with on March 3, 1890.

—It is reported that a party of grave robbers were surprised in a cemetery in Louisville, Kentucky, on Monday night, February 24. One was shot and killed, three others were arrested, but a fifth one escaped. The party is said to have consisted of three Louisville physicians, Dr. J. T. Blackburn, Dr. W. E. Grant, and another whose name is unknown, and colored assistants. It was one of the negro assistants who was killed.

—A new medical and surgical clinic was formally opened in the University of Rostock on January 18. Addresses were delivered by Professors Th. Thierfelder and Madelung, the latter of whom congratulated his hearers on the fact that it would henceforward be possible to carry out the antiseptic treatment of wounds in an adequate manner at Rostock. A new feature in the arrangements is an installation for the manufacture of dressings in connection with the surgical clinic.

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Clinical Lecture.

CHOREA FROM MENINGEAL HEMORRHAGE.—APHASIA DUE TO EMBOLISM.—THREE CASES OF MULTIPLE NEURITIS.—TWO TYPICAL CASES OF LOCOMOTOR ATAXIA.[1]

BY E. G. JANEWAY, M. D.,

PROFESSOR OF PRINCIPLES AND PRACTICE OF MEDICINE, BELLEVUE HOSPITAL MEDICAL COLLEGE, VISITING PHYSICIAN TO BELLEVUE HOSPITALS, ETC.

Chorea.

Gentlemen: The first case I show you today, this little girl two years of age, I wish you to contrast with the little epileptic patient I brought before you last week. You will notice this child exhibits the same sort of peculiar jerking, twisting movements of the limbs—movements that are styled choreic, and which are sufficiently characteristic to lead us to a diagnosis almost unassisted. Observe how the hand is poised, as it were, and then is used with a quick action, rotating the hand at the same time when she attempts to grasp this object I hold in my hand. The child's gait shows the same peculiarities; it is jerking and uncertain. In other words, there is muscular inco-ordination in all her movements. Notice, also, how marked this symptom is on the left side, while the right seems but slightly affected. Cutaneous sensibility is apparently normal. The reflexes are found poor. This is not an unusual circumstance in young children, and is of no importance. The child's muscular electrical reaction has been tested previously and has been found normal. Her heart and lungs, I find, show no evidences of disease.

Let us now understand a little more of the case. We ask the mother the mode of development of the affection. She tells us that after birth the child grew dark in the

[1] Delivered at Bellevue Hospital, N. Y.

face and lay in a stupid state, not crying nor caring to nurse. This condition lasted several days, and when it passed away the present movements of the limbs were observed. From this history it is probable that there occurred at this time a surface (meningeal) hemorrhage, extending irregularly over the upper part of the brain, involving both sides, but more particularly the right. Its site is probably over the motor tract. This form of hemorrhage sometimes occurs in young children without apparent cause. The danger in this case is that epilepsy may develop. It is not a certain sequela; but in these cases the tendency to its development is always present. Good care and treatment should be employed to ward it off, if possible. This child is anemic and not well nourished. We will order for her iron and cod-liver oil, and salt sponge-baths every day. As for the chorea, the mother must endeavor to educate the limbs, and particularly the left hand; to point out to the child, as well as she can, the unnecessary movements she makes, and to teach to overcome these. A great deal can be done in this respect.

Aphasia.

The girl whom I next bring before you is thirteen years of age. This information I get from her aunt, who accompanies her; for, as I ask the patient her name and her age, you observe she answers: "No," saying the same to every question. I ask her if she is in Bellevue Hospital, and if these are gentlemen she sees seated about in this room. She says: "No." But notice, at the same time, she nods her head in assent. Her reply at all times is: "No." She is unable to articulate any other word. Let us find out whether she understands what is said to her. I ask her to bring to me the satchel on the table; to take off her hat; to take the chalk and go to the black-board. She does all these things. I now tell her to make on the board the figure 1. She makes it; when asked what it is, she says: "No." She can make other figures, and also makes a very good attempt to write her name. She can draw lines in whatever direction I indicate, showing that she does not suffer from that form of aphasia called agraphia. But when I write a word upon the board, and tell her to point at what I have written, for instance, I write "hat," and tell her to touch hers, she does not apparently understand. But at once, when I speak the word, you see she understands me and puts her hand to her hat. To sum up, then, the elements of this girl's aphasia are: inability to speak and to read. Her understanding is not impaired, and she is able to write. As I listen to the chest, I do not find any evidence of heart disease.

Asking her to squeeze my hand, first with her right, then with her left hand, evident weakness is observed on the right side. As she walks across the floor, and particularly when she walks rapidly, you will notice that the right foot drags a little, and that the toes are turned in slightly. Tactile sensibility seems unimpaired. And vision seems perfect: she is able to see on all sides of the visual field.

The history of the case, as given by her relative, is as follows: During last summer she had an attack of what a physician told her was St. Vitus's dance. This lasted about two months and then entirely disappeared. Before that, her health had been good, and she had never at any time suffered from nervous symptoms. A few days before last New Year's day she was taken sick, had fever, and was confined to her bed for several days. On January 1 it was noticed that the twitching in the face and hands had returned, and a day or two later her inability to speak was present. The aunt tells me she had had no fright, and she knew of no exposure or exciting cause of any kind that might have brought on her trouble. She tells us she suffered at no time from pains in the legs or arms; but she noticed at first that her right side was weak. This symptom has been gradually improving.

With this history it is my opinion that at New Year's time our patient had endocarditis. It did not cripple the heart; for at present we find no evidences of it. But there was produced at that time, probably, a small vegetation upon the inner surface of the mitral valve. This was washed away, and became lodged in that branch of the middle cerebral artery that goes to the third motor convolution, interfering with an area a little beyond this. This is the seat of the lesion in amnesic aphasia. It may be situated in other parts of the motor tract of speech, however, in the other forms of aphasia.

Multiple Neuritis.

I now bring before you two patients who are suffering from the same disease. This

woman, forty-six years of age, you will perhaps recognize, as I lectured on her earlier in the session—fully three months ago. You may remember I then told you, though her condition was even worse than this other woman's here, that I believed she would improve and eventually recover. She then had—as this young woman has—paresis of arms and legs; she complained of severe pains and could not be touched or moved without crying out piteously; she had hallucinations and delusions, and frequently would keep the other patients in the ward with her awake at night by her screams and groans. Her state was such indeed that I spoke of the resemblance of the symptoms to those of dementia, and how apparently useless it seemed to treat her. But at the same time I called your attention to special features that we will see to-day more marked in the other case, and upon these I based my belief in the exact nature of her disease and in her recovery. For there is no doubt that many of these cases do get better.

We find to-day that her mind is perfectly clear, she answers questions and converses intelligently. Her headaches and pains and delusions have gone, and she sleeps well at night without drugs. She is able to hold her hands up straight, and has considerable power in her wrists; indeed they are nearly recovered. Her feet are still extended, and the power to flex them, though increased, is yet slight. You will notice that they are bandaged, so as to keep them as nearly as possible at a right angle with the leg. This is to prevent the contracture that is so liable to occur in these patients, and which often is the most serious consequence of their disease.

I ask her what she remembers of her sickness; when she was brought to the hospital; and how long she had been ill? and she tells me that all is a blank to her: she recollects nothing of the first part of her illness. I will now test her muscular reaction; and I find that there is response in the arms to both the Galvanic and Faradic currents, and in the legs to the Galvanic and slightly to the Faradic. Her treatment has been with the view of securing rest and nourishment. She has been well nursed and well fed, and hyoscyamine has been relied upon chiefly for allaying excitement and producing sleep. She now has a good appetite and looks improved in every respect.

This other woman, twenty-eight years old, shows the acute development of the disorder. Compare her condition with that of the patient we have just examined. Her face is flushed and wears an anxious and frightened look. You heard her scream as she was being wheeled into the amphitheatre in her cot: the jarring was very painful to her; and you will notice the same expression of pain every time she is touched or moved. We learn from the house-physician that she is delirious at night, that she has no appetite and that she complains of constant headache. As we proceed to examine her we notice the marked and characteristic symptoms of these patients; namely, the wrist-drop and foot-drop. You will observe as I lift the arms the hands fall, and so with the legs and feet.

In the left hand there remains no power of extension: the right she is able to lift slowly and partially. The feet she cannot lift at all. Now I would like to state right here that this symptom of foot-drop and wrist-drop which used to be looked upon as pathognomonic of the multiple neuritis of lead-poisoning is not so by any means. Indeed, it is most frequently due to alcoholic poisoning. I believe those cases (so often quoted) reported as the result of ale-drinking—reported as cases of lead-poisoning—were in reality due to the alcohol. Of course, don't misunderstand me, lead can cause this condition and does. So can other poisons. I have now under treatment a woman who is suffering from multiple neuritis caused by arsenic. She arose one night and drank water from a glass containing a certain amount of Paris green. She noticed the queer taste, but nevertheless drank again from the same glass during the night. Neuritis followed.

I question this patient before us and she admits having been accustomed to take alcoholics in excess; she also tells us she has suffered from vomiting, which indicates attacks of gastritis. To continue the examination: We have found paresis of the extensors of the hands and feet; we find now, by use of the æsthesiometer, marked tactile anæsthesia; somewhat less in the hands. At the same time, irritation, such as tickling or movement of the limb, causes extreme pain. There is no cutaneous reflex, no knee jerk; no ankle clonus. Pressure over the nerves supplying the feet or hands, and particularly over the smaller branches, produces pain. There is no response from the muscles to Faradization; but galvanic contractility is unimpaired.

This is the clinical picture of this case. We shall treat the patient in the same manner as the patient who has just gone out; and I hope to be able to show her to you again in a few weeks on the way to improvement.

Here is one other case. This woman, forty-eight years old, who has kindly consented to appear before you to-day, was under my care several years ago for this same multiple neuritis. Observe that she walks perfectly well; has almost perfect use of her hands; converses correctly; and is as well in every respect as she ever was, with the exception that in one hand there is slight contracture of the fingers. This was a very bad case, however; more pronounced than either of the others we have seen to-day.

Locomotor Ataxia.

Here are two men, respectively sixty and forty-eight years old, who present pictures of the same disease. As they step across the floor they both walk with that stamping, striking gait characteristic of locomotor ataxia. If I ask them to walk, and at the same time to look at the ceiling, you see they would fall, were I not to hold them.

Nor are they able to stand with their feet together and eyes closed, without falling. As they sit down and cross one leg over the other, notice the great swing and jerk they give the leg; and observe the over-action of the arms and hands as they attempt to unbutton their coats. As I test, I find both have very marked anæsthesia of the soles of the feet, and also tactile analgesia to a certain extent. The outer surfaces of the legs are more insensitive than the inner. They tell me that their feet are very sensitive to heat and cold, however; and they can predict with certainty changes in the weather by the aching in their limbs. There is loss of tendon-reflexes. With the eyes closed, you see that neither can touch his big toe nor any special spot on the leg that I indicate. He will go several inches out of the way and still have the conviction that he has touched the place. Both show marked delay in transmission of sensation; when I strike the foot it is an appreciable time before they feel it. They tell me neither has suffered from the sensation of a constricting band across the abdomen, or on the legs, nor from stomach crisis, nor bowel or bladder irritation. The younger has no eye symptoms. In the old man I notice slight strabismus and a tendency to myosis, or contraction of the pupil. This patient has had syphilis; the other, not. His trouble began eleven years ago with weakness in the legs; then shooting-pains set in. They occurred every week at first, until they were present daily. He does not suffer from them now.

The younger patient says his disease began eight years ago. First the pains, which gradually increased in severity; then the loss of power. He still feels the pains sometimes.

As the hour has expired, I will postpone speaking more on this disease for the present, but beg you to fix these cases in your minds, as two very marked and characteristic cases of locomotor ataxia.

COMMUNICATIONS.

NEED OF A STATE BOARD OF MEDICAL EXAMINERS.

BY JOHN B. ROBERTS, M. D.,

PROFESSOR OF SURGERY IN THE WOMAN'S MEDICAL COLLEGE OF PENNA., ETC.

Mr. President and Gentlemen of the Society:

I do not propose to read a definite paper to-night, because it seems to me that there is danger, in a subject as long and as important as this, that a paper written might be too long, if I said all that should be said, and might not be as impressive as if spoken off-hand.

It may be familiar to some members of the Society—it certainly is in the recollection of a few—that in 1884 I had the honor to read before the Society a short paper entitled "The Legal Control of the Medical Practice by a State Examination." After the reading of that paper a committee was appointed to prepare a bill to be presented to the State Legislature. This was prepared and presented, but no action was taken on it. It is not worth while going over the various arguments which were used in that paper to show the necessity for a State Board of Medical Examiners, or for some legal control of medical practice, nor is it necessary to read to you the voluminous documents I hold in my hand.

Since 1884 the topic has been discussed

[1] Read before the Medical Jurisprudence Society, of Philadelphia.

in nearly every county medical society in this State, and has been earnestly considered by the Philadelphia County Medical Society, the State Medical Society and the American Medical Association.

It seems to me that the best way to take it up is to say in the first place that this bill was not intended by any of us, who have brought it forward or who speak in favor of it, to protect the medical profession. I would not support any bill designed to prevent other physicians practicing in this State who were educated graduates of medicine. The only basis upon which such a law can be proposed is that it protects the State: in other words, it insures to the State the best working capacity of its citizens, it insures to the State the longest life of its citizens, and the smallest number of paupers, as under its enforcement those that become disabled or sick will be as far as possible more rapidly restored to health than if subjected to the dangerous care of uneducated and ignorant doctors.

The present need of a State Board of Medical Examiners and Licensers is due in the first place to the present defective condition of the existing law. The present registration law, which was enacted in 1881, is defective in a number of ways. It provides that every man practicing medicine in the State of Pennsylvania shall be registered in the Prothonotary's Office. If he has a diploma from a medical institution situated outside of Pennsylvania, he must present his diploma for indorsement to a faculty giving instruction in medical science in this State. Now the fault in the law is this: It says that a man, coming from ouside this State, that is, from Europe or Australia or South America or from New York, Ohio or any other State, shall present his diploma to the faculty of one of the colleges; and that said faculty being assured of the genuineness of the diploma and of his qualifications as a physician shall indorse his diploma, which he shall then take to the Prothonotary's Office and present for registration. After this he shall be a duly registered physician and entitled to practice. The law, you see, therefore, is very indefinite. The indorsing faculty must be assured of the genuineness of his diploma and of his qualifications. Now how can a Dean of the Faculty of one of the colleges in this State be assured of the qualifications of another man who comes into this State to practice, excepting by examining him? How can he be assured of the genuineness of the diploma which is presented to him for indorsement? He can write, it is true, to the distant college which is supposed to have issued the diploma. He may get an answer, he may not get an answer. He may hear from that college that a man with the name corresponding to that on the diploma graduated at such and such a time, but how does he know that the man who presents this diploma is the man who is named? It is easy enough for one to give the name corresponding to that on the diploma presented. A man was discovered some time ago, who, it was said, had been practicing on a diploma granted to his father.

This shows the defect in the law as to the genuineness of the diploma. The defect as to the qualifications of the applicant is far greater; and has been met by some of our medical colleges by their insisting that a man who comes to have his diploma registered shall pass the same examination as their own students do. This puts the faculty to much trouble and necessitates the applicant's paying a fee of $20 or $30. He has got to pass the examination in this case and pays a higher fee than if the State Board of Medical Examiners was created by the enactment of the proposed bill. Besides, the examination is likely to vary in each college, and the applicant will probably seek the easiest and cheapest.

So much for the defect of the present law in this regard.

Again, many diplomas have been accepted by Prothonotaries throughout the State, and particularly in the country towns where the Prothonotary's clerks knew very little of the appearance of diplomas, which were bogus diplomas; that is, bought outright, or not diplomas at all, but simply certificates. Thus there are many persons registered at the present time who possess no diploma, or merely a diploma for which they have paid. Of course this thing does not affect us so much in the large cities as it does in the country districts. The country has suffered more than the cities in this respect. I am told that in one of the counties the Prothonotary's clerk accepted and filed with great diligence, as a genuine diploma, a letter which set forth that the man presenting it was a hospital steward in the German army. On this document he became a legalized practitioner in Pennsylvania.

Another defect in the law is that these diplomas shall be presented to a medical

school or college and be indorsed, but does not describe what sort of a medical school. There is one medical school which does not touch undergraduates. I refer to the Polyclinic, of which I have the honor to be a member. Over and over again we have been asked to examine and indorse diplomas of men who have graduated outside Pennsylvania, but we have declined to do so. We could do so, because the Polyclinic is certainly a medical school and the law does not restrict the indorsing school to schools for undergraduates. The view that our faculty has taken is this, that as a postgraduate college cannot grant diplomas and convert citizens of Pennsylvania into physicians, it should not make a graduate who comes from a foreign State a legalized Pennsylvania physician.

A second argument in favor of the Medical Examiner's bill is that there are, as you know, similar laws bearing on pharmacy and dentistry. They do not in all respects correspond with the law we propose, because the conditions are quite different, but they have for their object the protection of the public from dangerous ignorance on the part of druggists and dentists.

That there is need for some examination of graduates is, I think, very apparent, from what has been said in the various numbers of recent medical journals.

For example, we know that the Army and Naval Boards of the United States examine men for admission as Assistant Surgeons in the army and navy. The applicants are graduates of medical colleges, and yet a very large number of them are found to be totally unable to pass the necessary examination for admission to the medical corps of the navy or army. I believe it is more of an honor to be a member of the medical corps of the army or navy of the United States than to hold the diploma of any college in this continent, none excepted, because I know that men cannot get into the army and navy without passing a very severe examination, which is probably a better test of ability than any examination that is ever passed at any of our colleges of medicine.

I have here a paper prepared by Dr. Jackson showing some of the answers which have been given by graduates when examined by State Medical Examining Boards, or by the Army and Naval Medical Boards; and as I read these questions and answers to you, even those of you who are not medical men can measure the calibre of these graduates. They were graduates and often doubtless of good schools; but there is a temptation, when the professors who teach at the same time give the diploma, to let students slip through the final examination. Especially is this so if they know his father or if they feel he is a poor young man. A professor once said to me, "These men come here and stay two years at study, and it is very hard to reject them when you know their money is all gone and that they perhaps have families depending on them."

These are some of the answers which have been given :

"The corpus callosum is that part of the dura mater which separates the cerebrum from the cerebellum."

"The vertebral artery communicates with the cavernous sinus."

"The aortic artery makes its exit between the first and second ribs."

"The peritoneum is a *serious* membrane lining the belly and extending into the chest, covering the heart and lungs."

"The boiling point of Fahrenheit is about 300°."

"The normal temperature of the human body is from 112° to 140°.

"The temperature of the body in African fever is 96°, much above the normal temperature of the body, which is 92° F."

"The temperature of the system is variable. In health the cuticle stands at 70°."

"The average respiration *are* 70° per minute."

"The symptoms of delirium tremens, of which I have had numerous cases, are dilated pupils, hot, dry skin, slow pulse and glassy eye."

"Galen introduced vaccination or inoculation in the seventeenth century."

"Acupressure may be pressure by a tourniquet, by a V-shaped bandage, by a pad, or by the hand."

"Acupressure is made with the finger or any other instrument."

"The laryngoscope is a short tube, which you put into the throat to look through."

"The tuberosity of the tibia is the part broken in Pott's fracture."

"Ranula is a disease of the eye."

"Coxalgia is an inflammation of the coccyx."

"Scarlatina is an eruption of the head and face."

"What is dengue or break-bone fever?"

"A fever that comes on soon after the bones are broken. The patient should be cau-

tioned against moving, for fear the bones should break."

"The best way to facilitate the expulsion of the placenta is to let the woman get up and walk about the room, allowing five minutes to elapse after delivery before requiring her to get up and walk."

"Phymosis is the result of old age."

"The difference between galvanism and electricity is that one of them is the substance itself and the other its use."

"The most simple form of galvanized battery is the Leyden jar."

"Phosphorus burns and makes nitrogen gas."

"In apothecaries' weight there are sixteen ounces to the pound."

"The technical name of rhubarb is columbo."

The following were given by doctors said by their diplomas to be learned in the science and art of medicine as the proper doses of the respective drugs, for administration by the mouth: Powdered cantharides, 40 grains; tartar emetic, 10 grains; corrosive sublimate, 1 grain; atropia, 60 grains, or 10 grains hypodermically.

One did not know what placenta previa was; another believed pneumonia to be a particular disease of one lung, and pleurisy the name given to it when it affected the other. A third wrote that for orchitis, "extirpation of one or both testes must be submitted to, being the last and only resource to be had that can possibly save the patient." A fourth, having absented himself from an examination, explained that he "had been ill with cholera infantum."

Here is a list from the medical board of Virginia showing the number of rejections of candidates from some of the colleges which have been represented by graduates who were applicants for license to practice in Virginia:

The work was done by the Medical Examining Board of Virginia from January 1, 1883, until October 9, 1888.

Medical College of Virginia, 57 applicants, 8 rejections.

University of Virginia, 33 applicants, 1 rejection.

College of Physicians and Surgeons, of Baltimore, 34 applicants, 10 rejections.

University of Maryland, 34 applicants, 9 rejections.

Jefferson Medical College, 12 applicants, 3 rejections.

Bellevue Hospital Medical College, 6 applicants, 1 rejection.

University of City of New York, 7 applicants, 2 rejections.

Louisville Medical College, 2 applicants, 1 rejection.

Columbus Medical College, 3 applicants, 2 rejections.

There are many other medical colleges mentioned, but this partial list is sufficient to prove the inefficient knowledge of at least some of the graduates of well-known institutions.

There have been several objections made to the bill, which I think ought to be answered before I sit down.

It has been said that if the Governor is given the power to appoint without any supervision he might appoint men who are unacceptable to the profession—men who are not competent to examine. It is said that only teachers know how to examine, and therefore as this bill excludes men having connection with colleges from serving on the board, it would be impossible to find suitable examiners. To this I would answer that the Examining Boards of the Army and Navy are made up exclusively of physicians from the army and navy who of course are not teachers. Moreover there are many physicians in Pennsylvania now unconnected with medical schools who have at some period been teachers in scientific schools or quiz masters in medical colleges. These would make good examiners.

To get over the objection that the Governor would have liberty to appoint whom he chose, the bill reads that the various State Medical Societies shall submit lists of names to the Governor, and that he shall choose from these lists the members of the Board.[1]

Opposition, it is said, will come from the schools and colleges. I admit that some of the schools may dislike the idea of their diploma losing its power as a license. Schools, I think, are short-sighted who look at it in that way, because if this law is passed it will have a tendency to keep men in the State who desire to study medicine, because they will say, "If we remain in Pennsylvania and study in the State schools, we will be better able to pass the examination of the State Board, and can then practice without going to the trouble of another examination." I think such a law would have a tendency to add to the classes in the schools.

I may state that I looked over the mem-

[1] This feature of the bill was subsequently modified.

bership list of the Warren County Medical Society the other day and found that only two men in that Society had graduated from colleges in the State of Pennsylvania. They were mostly graduates of colleges in New York, Ohio, or Maryland, who had come into Warren County, finding it a good place to practice. Now if there was a State Examining Board at the time these physicians graduated, it seems to me that they would have been more likely to have entered the schools in the State than to have gone outside the State in order to get their medical education. A State Examining Board with power to license has worked well in other States. It gives the State a better class of men to take charge of the health of its citizens, and diminishes the number of sick thrown on the bounty of the State, because of incapacity due to poverty from ill-health.

Finally, it is a fact that the profession demands such a law. The subject has been discussed at several annual meetings of the State Medical Society, and overwelmingly approved. The bill has been advocated by the Philadelphia County Medical Society, and by very many other societies throughout the State. The medical journals have approved of the principle of the bill. Of course such a board, to be just, should not be expected to recognize any sect of medicine; there should be no mention or allusion in the law to special doctrines or special methods or practice. The present bill is framed with this as its underlying principle; and is equally fair to all forms or systems of practice, all of which have the same right to be represented in its composition.

SPRAINS OF THE ANKLE-JOINT.

BY JOHN M. CURRIER, M. D.,

NEWPORT, VT.

It was not for several years after I went into the practice of medicine that I became aware of the gravity and importance of sprained ankles. Like others of the profession I looked upon sprains as nothing serious, and got accustomed to prescribe some anodyne, rubefacient liniment to be "rubbed in well before the fire," and gave the patient no further attention. Many of these cases resulted well, as they would have done, whatever might have been prescribed; but now and then a case would return, in which there was great swelling, intense pain and inability to step on the foot, or to bend the joint. Sometimes these cases would last for weeks and months; and I have seen cases not fully recovered in three years. Now what is the cause of this great difference in the results of apparently the same grade of cases?

It is quite as likely to see a mild sprain followed by the worst results as one in which the symptoms were severe from the first, and those are the ones that receive no care, until the symptoms become aggravated, and inflammation extended through the joint.

Several cases that I have had the care of, and have had all the advantage of adopting the most vigorous treatment, have taught me a good lesson; and now I seldom fail in getting good results. Those cases which require our most skilful treatment are those in which the external lateral ligament has been torn across, and there is rupture of the synovial membrane with escape of the synovia into the surrounding tissues. These cases, although at first they may seem mild, are usually followed by great swelling and inflammation of the joint. Another feature in the pathology of some of these cases is, sometimes, instead of there being a simple rupture of the ligament (middle fascicular), it is torn from its insertion, taking along with it portions of the bone on which it is inserted. These latter cases require a long time to recover, and are quite likely to be accompanied by great pain and swelling. Such a case seldom recovers inside of three months.

It will at once be seen that it must require a long time to recover from such an injury when we reflect that in health there is no blood circulating in those ligaments. When they are injured by rupture, before they can unite the fragments must be supplied with provisional blood-vessels; and after union of the parts these blood-vessels must become atrophied, and the structure of the united fragments become again bloodless before the limb is again fit for use. During this healing process inflammation of the joint and surrounding parts is very likely to take place, especially when there is motion of the joint or between the fragments of the ligament.

The treatment consists in absolute rest until union has taken place between the severed parts. The inflammation can be controlled with cold water. No hot applications should be used, nor any rubefacient liniments.

REMOVAL OF COCKLE-BUR FROM THE LARYNX.[1]

BY A. B. THRASHER, A. M., M. D.,
PROFESSOR OF LARYNGOLOGY IN CINCINNATI POLYCLINIC.

On September 21, 1887, Effie S., fifteen years old, of Grant's Lick, Kentucky, was brought to my office by her father with the following history: Ten days before, while playing out-of-doors, she drew a dried cockle-bur into her throat while laughing. This was followed by violent coughing and aphonia. Several attempts at removal were made by the family physician but without success. On the fourth day dyspnœa began to appear, and her physician advised that she be taken at once to me, the father understanding the serious nature of the case.

On presenting herself at my office she was breathing with an evident effort, and the slightest exertion increased to an alarming degree the dyspnœa. The patient had an anxious expression but was otherwise in good condition. A rapid laryngoscopic examination revealed marked congestion of the pharynx and larynx and a white body could be seen blocking the posterior half of the rima glottidis. There was considerable œdema of the ventricular bands, the swelling apparently obliterating the ventricles of Morgagni. The entire larynx was covered with frothy mucus through which the respiratory air bubbled in its passage into and out of the lungs. The examination excited a fit of coughing which had the effect of clearing away the mucus and thus revealing the very small breathing orifice in front of the foreign body.

Owing to the extremely irritability of the parts, a prolonged view could not be had, so I at once sprayed the pharynx and larynx with a four per cent. solution of muriate of cocaine. After a few minutes I painted the upper part of the larynx with a twenty per cent. solution of cocaine, repeating the operation every few minutes until the larynx could be touched without exciting spasmodic contraction.

Realizing the extreme slippery character of the obstructing body, for the bur had been macerating in mucus for ten days, I selected a toothed laryngeal forceps with a lateral opening of the Mackenzie model. With this strong instrument I penetrated the opening between the swollen ventricular bands, opened the blades and pushed them back until the bur was well within their grasp, when it was easily removed. The bur was so encapsuled in a viscid, tenacious secretion that the prickles were entirely covered, and it was only after long washing that the surface was cleansed. Of course the removal of the cockle bur was followed by a rapid recovery from all the serious symptoms.

[1] Read before the South-Western Ohio Medical Society, Cincinnati, O.

ABSCESS OF THE UPPER EYELID FOLLOWING INFLUENZA.

BY G. E. DE SCHWEINITZ,
OPHTHALMIC SURGEON TO THE PHILADELPHIA AND CHILDREN'S HOSPITALS.

Numerous ocular complications of influenza have been reported, especially in communications by French physicians to the Society of Ophthalmology in Paris. These have, in large measure, consisted in associated conjunctivitis of more or less special type, occasionally in episcleritis, in accommodative asthenopia with, in several instances, rapid amblyopia, in paralysis of the oculo-motor nerve, and in a variety of affections of the eyelids, namely, herpes, sudden œdema and abscess.

In the Paris letter printed in the MEDICAL AND SURGICAL REPORTER, for February 15, 1890, the experience of Prof. Landolt upon this point receives notice. His observations on abscess indicate that this lesion appeared after the acute symptoms of the disease had vanished, and sometimes several weeks after its cure. The formation of the abscess was ushered in with intense headache, sleeplessness, fever and deep red discoloration of the skin, resembling erysipelas. Incision evacuated pus of a remarkably bad odor.

I have seen a number of cases of abscess in the eyelid (all of them in the upper eyelid) associated with or following attacks of the recent epidemic catarrh. A brief record of several of them may prove interesting.

Case 1. A child, æt. 3, the subject of bronchitis, in its turn a sequel of influenza, awoke in the night with pain in the right eyelid which was found to be dusky red, and in the next twenty-four hours had swollen until it was tight shut, and on the surface presented the appearance of ery-

sipelas. Under the influence of hot compresses and a lotion of boric acid, a spot more indurated than the rest of the swelling at the outer side discharged spontaneously from the conjunctival surface, and the swelling quickly subsided. In a few days a precisely similar abscess formed with similar results. The child was distinctly depressed, as far as nutrition was concerned, at the time of the development of this trouble.

Case 2. A young man, æt. 20, in poor general health, had a severe attack of influenza, went out before he was entirely cured and suffered a relapse characterized by a sharp bronchitis. During his convalescence from the bronchitis he was seized with severe pain in the right eyelid, which swelled rapidly, and a brawny flush spread from it upon the temple. At the outer side incision disclosed a collection of pus, after the evacuation of which the cure was rapid.

Case 3. A man, æt. 40, presented appearances precisely similar to those described in the other two cases. They came on during an attack of bronchitis, the result of exposure during his convalescence from an attack of "*la grippe.*" In this instance the abscess was situated above the outer commissure of the right eye, and its evacuation resulted in a speedy subsidence of the symptoms. Four other examples which I have observed presented precisely similar symptoms.

In none of these cases was there anything peculiar about the pus, nor did I notice any unusually bad odor. In all of them there was at the same time more or less bronchitis, the result of exposure during convalescence from influenza. In this sense, then, the symptoms of abscess appeared after the disease itself had vanished; but they were not—as happened in many of the French examples—seen weeks after recovery from the *grippe;* because in none of these patients were the respiratory tracts in a healthy condition. In all of them the general disturbance was distinctly out of proportion to the local lesion.

I know of no explanation to account for the formation of these abscesses, except the one naturally suggested by the depressed nutrition of the subjects, and by the fact, noticeable in other complications of influenza, that there appears to be a marked tendency to the formation of pus in various regions of the body, striking examples of which are seen in the occurrence of fatal attacks of purulent pleuritis and pericarditis.

Society Reports.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Stated Meeting, Jan. 8, 1890.

The Vice-President, Dr. John B. Roberts, in the Chair.

Dr. Charles B. Williams, read a paper on

Aneurism of the Pulmonary Artery.

A careful study of recorded cases shows several varieties of dilatation of the pulmonary artery. The first and by far the most common variety is a general dilatation of the trunk and primary branches. Next in frequency comes sacciform dilatation. The artery in some cases of sacciform aneurism has been dilated to the size of a pomegranate, and the case recorded by Dr. Sydney Coupland, in 1875, showed a dilatation of six and one-eighth inches in circumference. Fusiform dilatation is also found. I have found reports of but two cases of dissecting aneurism of the pulmonary artery. Finally, we have the arterio-venous aneurism, where there is a communication between the aneurismal sac and the ductus arteriosus. The only case of this variety known to me is that recorded by Drs. Balfour and Smith, in 1879. The diagnosis in this instance, however, was inferential and based on negative signs, for the patient was living when the article was published.

Aneurisms of the pulmonary artery, such as I have been considering, are for the most part usually situated on the trunk. But the dilatation has extended to the main branches and even to smaller ramifications of the artery.

Through a process of atheromatous change multiple aneurisms of the pulmonary artery are often formed on the walls of old phthisical cavities; and through erosion or sudden bursting of the walls of these aneurismal sacs a fatal hemoptysis has frequently occurred. Buhl and Zenker have described such cases, and Joseph Cornet in an elaborate thesis has recorded thirty-four cases of peripheral aneurism of the pulmonary artery occurring in phthisical cavities.

Dr. William Aitken, of Edinburgh, records a case of a soldier who had died suddenly of hemorrhage from the lungs. On opening one of the tubercle cavities it was

found filled with coagulated blood, and projecting from a spot on the wall of this pulmonary cavity was a round tumor of the size of a walnut. The tumor had ruptured and the rupture held a coagulum of blood. The tumor was found to be an *ectasis* or aneurismal dilatation of the pulmonary artery. Several other tumors of a similar nature but of much smaller sizes existed in other cavities in the lungs, projecting from the pulmonary artery.

The causes of aneurisms of the pulmonary artery are chronic endarteritis or atheroma, syphilis, great pressure in the pulmonary circulation as in marked mitral stenosis or insufficiency, collapse or emphysema of lung with great hypertrophy of the right ventricle, and patency of the ductus arteriosus.

The symptoms of aneurism of the pulmonary artery are lividity of face, dyspnœa, cough, dysphagia, headache, pain in the chest and epigastrium. The principal physical signs that have been recorded are a systolic pulsation and tremor (sometimes also diastolic) between the second and third ribs of the left side near the sternum, perceptible in a decreasing degree downward but wholly wanting above the clavicle. A very loud, superficial, rough, systolic murmur propagated to the left and upward above the clavicles and over the whole præcordial region, but loudest upon the prominence between the two ribs mentioned. The above physical signs and symptoms are by no means constant; and even should they all be present they might be caused by aneurism of the aorta or by a mediastinal tumor lying over the vessels.

It is claimed that a means of establishing a differential diagnosis between aneurism of the aorta and pulmonary aneurism can be made by observing the cardiac hypertrophy and dilatation. If it should prove to be on the left side of the heart, aneurism of the aorta is indicated; if on the right side, pulmonary aneurism.

The differential diagnosis between subclavian aneurism and aneurism of the pulmonary artery may be made from the fact that a pulsating tumor above the clavicle points to sub-clavian aneurism, while such a pulsation, on the other hand, is entirely absent in pulmonary aneurism.

The treatment of aneurism of the pulmonary artery is the same as in other thoracic aneurisms. And, probably, the method that will give most success is that instituted by Mr. Tuffnell, *i. e.*, a careful regulation of diet, a definite quantity of solids being administered at stated intervals, the object being to support life with as little food and drink as possible. Potassium iodide and subcutaneous injections of ergotine have been also recommended.

Lichtheim after a series of thirty-three experiments, mostly made on dogs, seems to have shown that ligation of the pulmonary artery is without any effect upon arterial blood-pressure, hence, any operative treatment of this kind in aneurism of the pulmonary artery would be useless.

My attention was called to the subject of pulmonary aneurism by having the following case put under my professional care by Dr. John B. Roberts, a short time before the patient's death.

Aneurismal dilatation of the pulmonary artery and its primary branches, mistaken for sub-clavian aneurism.—John B., æt. forty, colored, a laborer, applied to the Philadelphia Polyclinic Hospital for treatment on July 19, 1887, with the following history:

Family history negative. Personal history: at the age of twenty-two he had gonorrhœa and chancroid. In 1875, he had specific disease and chancre, but no secondary symptoms followed. In 1879, he took a severe cold followed by cough; and during this time he had a slight hemorrhage, the blood being light-colored.

Two months later he had hemoptysis, the blood being dark-colored. In a short time the patient became very weak. At present he has dyspnœa but no pain. His appetite is poor and bowels are regular. On July 21, 1887, Dr. Thomas J. Mays made an examination, and from his clinical records the following notes are obtained.

Physical Signs.—Dulness on percussion below the left clavicle from the sternum to the shoulder-joint. A low systolic bruit is heard over this region as well as a very perceptible thrill to the fingers. The systolic bruit is propagated over the whole cardiac area and into the axilla. The maximum intensity is, however, at the junction of the first intercostal space with the sternum. There was no bulging whatever. No cardiac conditions were noted. The left radial and axillary pulse is weaker than on the right side. He has frequent pains shooting down his left arm. A diagnosis was made of left subclavian aneurism, possibly of syphilitic origin.

The patient was treated with iodide of

potassium, arsenic, nitroglycerin, atropine, strophanthus, etc., in accordance with his symptoms; but no marked improvement occurred. He was then transferred to Dr. John B. Roberts's care, who admitted him to his ward in St. Mary's Hospital on August 20, 1887.

Dr. Roberts now called a consultation of the surgical staff of St. Mary's Hospital, and the diagnosis of subclavian aneurism was concurred in by Drs. Keen, Mears and Grove. It was decided to ligate the subclavian and carotid arteries unless improvement followed confinement to bed and very restricted diet associated with large doses of potassium iodide. The patient was accordingly put to bed, allowed exceedingly small quantities of milk and beef tea, not permitted to leave his bed even to go to the water-closet, but was enjoined to lie perfectly quiet and given as large doses of potassium iodide as he could take without toxic symptoms. As soon as interference with digestion or irritation of the mucous membranes resulted from iodism, the dose was diminished. The exact quantity taken in twenty-four hours cannot now be definitely determined. It was, probably, in the neighborhood of two drachms per diem. Under this treatment he continued for about twelve weeks. His condition improved, the thrill in the subclavicular region became almost extinct and in every respect the patient was vastly better. Confinement to bed, however, became so irksome to him that he finally insisted upon getting up and returning to his home on December 4, 1887.

Dr. Roberts saw him once or twice at his own home during the winter of 1887 and 1888, and finding him not as well as when he was in the hospital, but in a very fair condition, advised at that time the operation mentioned above. This was, however, declined by the patient.

Nothing further was heard of the patient until the spring of 1889, when Dr. Roberts was asked to see him subsequent to a profuse hemoptysis. It was then stated by the patient that in the interim of treatment he had gone along quite well and had been frequently out and about the streets, and was well enough had he been a man of affairs to have attended to ordinary business engagements, though, of course, heavy physical labor would have been impossible. He was treated with fluid extract ergot, ammonium bromide, tonics, etc., for the hemoptysis, excessive cough and grave debility. It was stated that at one time he lost about one pint of blood. This seemed to relieve dyspnœa and he was, therefore, made more comfortable. There was also profuse mucopurulent expectoration. He was then admitted into Dr. Roberts's ward at St. Agnes's Hospital, June 22, 1889.

In May, 1889, a note was made that there was marked bronchial breathing on the right side of the chest, subcrepitant râles on both sides and a good deal of cough—though cough was not so excessive as it had been.

The fact that the aneurism had not increased in size since Dr. Roberts had seen him previously, which was nearly a year and a half; and that there was no bulging forward or evidence of erosion of the sternum or ribs made him suspicious as to the aneurismal character of the growth, and he, therefore, suggested the possibility of the disease being a vascular sarcoma located within the chest. Operation had been deferred at the time the patient was in St. Mary's Hospital because of the improvement under medicinal treatment. And at the present time the fact that no increased development was apparent rendered operation questionable, especially as the man evidently was the subject of phthisis.

Upon his admission to St. Agnes's Hospital the patient was very weak, had great dyspnœa, was the subject of harassing cough with expectoration, and was evidently in a precarious condition. June 22, 1889, a physical examination was made by Dr. J. P. Crozer Griffith, an abstract of whose notes made by Dr. Thomas Vincent, the resident physician, is as follows:

No abnormal pulsations were noticed in the neck. Dyspnœa generally marked on talking. Expansion of the right side was much greater than that of the left side. Supra-clavicular fossa was more clearly depressed on the right side than on the left side. No bulging anywhere in the intercostal spaces; they were about normal on both sides. No marked difference in vocal fremitus.

Percussion of lungs: right side anterior: full and resonant. Left side supra-clavicular fossa: resonant over clavicle, and extending downward to about the first intercostal space decidedly impaired.

The resonance of the manubrium was normal, the impairment commencing with the cardiac dulness.

Axillary resonance normal.

Right supra-spinous and back of supra-clavicular fossa: fine crackling râles heard on inspiration. Expiration prolonged and somewhat bronchial. Infra-clavicular fossa gave much the same inspiration, and the expiration was prolonged. Over the right side of chest a murmur was noted, and fine râles occurring with expiration. Left supra-clavicular fossa: numerous small mucous and some fine râles, with the bruit over the respiratory sound. Over the left chest: respiratory sounds feeble, with numerous mucous and sub-mucous râles. Posteriorly, infra-spinous fossa both sides somewhat impaired. Infra-spinous fossa, negative. Elsewhere in the chest, negative.

Right side, auscultation negative. Left side, auscultation supra-spinous fossa: numerous mucous râles heard. Inspiration feeble. Infra-spinous fossa, and elsewhere over the chest, numerous râles. Respiration than on right side, and bronchial in character.

Heart: First left interspace from the boundary of the sternum outward about two inches, was a very distinct thrill, but no expansile pulsation. Apex beat very feeble, and only felt in the fourth and fifth interspaces within the nipple line when the patient was leaning outward, or on full and held inspiration.

Auscultation of heart: at apex of heart a low-pitched systolic murmur was heard. Second sound clear. Over the xiphoid cartilage a ringing second sound was noted, and a high-pitched systolic murmur. Over a portion of the chest there was a loud systolic bruit. There was no diastolic murmur. A systolic murmur could be heard faintly in the left cartoid, and likewise a loud murmur above the left clavicle. The murmur was faintly heard in the left axilla. There was a faint murmur in the left supra-spinous fossa, but none elsewhere in the back.

Right radial artery: normally full tension. Left radial artery: scarcely perceptible.

The patient died August 14, 1889.

An autopsy was made by Dr. C. L. Bower, and it was found that the patient had tuberculosis of both lungs, and an aneurism of the pulmonary artery and its primary branches. The pleura was noted to be full of adhesions. The remaining organs were normal in their condition.

An examination of the aneurism showed that the pulmonary artery for about four inches from the heart was dilated symmetrically—the dilatation extending also to the primary branches. There was no sacculation, the form being more like that of a fusiform aneurism. The cavity at the greatest diameter of its dilatation was about two inches, and corresponded with the position of the ductus arteriosus. The ductus arteriosus seemed wider than normal, and on the pulmonary side appeared to be patulous. On the aortic aspect, however, it was normally closed. The inner coat of the pulmonary artery showed no disease, and was not the seat of fibrinous clots, but contained chicken-fat clots. The aorta showed several atheromatous patches.

Discussion.

Dr. J. P. Crozer Griffith: I had the opportunity of examining this case during my term of service at St. Agnes's Hospital, and though I was unwilling at the time to commit myself to a diagnosis of subclavian aneurism, and did not feel sure that this existed, I am forced to say that the possibility of the presence of an aneurism of the pulmonary artery did not come into consideration. This case teaches that we should never be led astray by the fact that a certain disease is a rare one, but that its possible existence in any case under examination should always be taken into account. I was forcibly impressed by this some years ago, during the frequent observations made on a case of ulcerative endocarditis, in which the lesion was supposed to be situated in the mitral valve; the possibility of its being a tricuspid lesion, as the autopsy later showed it to be, not having been thought of. And, as in that case, so here, it is instructive afterwards to review the symptoms, and to endeavor to determine whether it would have been possible to have drawn a correct conclusion from these and the physical signs.

Very little is written in the text-books regarding aneurisms of the pulmonary artery. Cutler, in the *System of Medicine*, by American authors, says that it is of so rare occurrence that it may be merely mentioned. The symptoms of the affection are those described by Dr. Williams, but unfortunately, only a few of them are usually present in any given case. One patient will have lividity, another dyspnœa, another the peculiar thrill, etc., and in fact there are seldom or never enough symptoms in combination to render the diagnosis easy. I do not now remember the condition of the pulmonary

second sound in the case reported, and I do not think that the report mentions it; although I am sure that some reference is made to it in the original notes of the careful examination which I tried to make of the patient. This condition of the pulmonary second sound is a matter of the greatest diagnostic importance.

The diagnosis rests between aneurism of the pulmonary artery, aneurism of the descending portion of the arch of the aorta, and aneurism of the subclavian artery.

The position of the dulness might indicate the latter, yet aneurism of the pulmonary artery would occupy about the same position, and that of the aorta might reach the chest wall at the same place. Thrill could occur in any of these aneurisms, and a systolic murmur might be heard in any of them, or might be entirely absent. I believe it was Stokes who raised the doubt as to a murmur heard over the aneurismal sac being at all a symptom of aortic aneurism. He examined a large number of museum specimens of aortic aneurism, and compared them with the clinical histories of the cases. In every case in which a murmur over the aneurism had been recorded during life, disease of the aortic valve was found *post-mortem;* and, conversely, in those cases in which no such lesion existed, no aneurismal murmur had been noted while the patient was alive. He therefore suggested that it was at least possible that the murmur was simply a transmitted murmur from the diseased valve, and had nothing to do with the aneurism. In the specimen exhibited this evening, I notice that the leaflets at the pulmonary orifice are decidedly diseased; and the case history reports, as you remember, a murmur.

One point which might aid in the diagnosis is the location of cardiac hypertrophy—whether the right or the left side is involved.

There was no marked dyspnœa or lividity in this case, and whatever existed could be explained as well by the presence of phthisis, from which the patient was suffering.

In aneurism of the aorta we would expect a ringing aortic second sound, probably more distinct over the tumor than over the aortic cartilage. In aneurism of the pulmonary artery, on the other hand, we would look for accentuation of the pulmonary second sound. Such an accentuation, however, does not necessarily indicate aneurism. It is commonly met with in children in perfect health, and it is an attendant on any condition which produces increased tension in the pulmonary circulation. I think that the only way in which we could have reached even a probable diagnosis in this case would have been by detecting evidences of hypertrophy of the right side of the heart and an accentuation of the pulmonary second sound; and in reviewing the matter I cannot feel that we should reproach ourselves in the least for the failure to make a correct diagnosis.

Dr. G. G. Davis: The importance of the differential diagnosis in these cases is evident. If, under the supposition that the aneurism were one of the subclavian artery, that vessel were ligated, the operation would be useless, and the patient might possibly lose his life. The only additional point in diagnosis which I see is that aneurism of the pulmonary artery involves the deeper structures and is not so apt to give rise to the anterior chest symptoms as usually occurs where the arch of the aorta, or its branches, are involved.

Dr. John B. Roberts: It seems to me that the interest in this case does hinge largely upon the diagnosis. None of the gentlemen who examined the case three or four years ago, suggested the possibility of aneurism of the pulmonary artery. When the case again came under my observation six months ago, it seemed to me questionable whether the subclavian artery was the seat of aneurism. I was led to this opinion by the fact that he had lived so long with considerable comfort, and the fact that there was no bulging forward of the ribs or sternum. I did not even then think of aneurism of the pulmonary artery, but was inclined to think that it was some form of vascular sarcoma.

The surgical bearings of the case are very important. After he left St. Mary's Hospital, I strongly advised operation, but he declined. If he had accepted the operation, he probably would have died. This case shows that conservative surgery is sometimes the best surgery. Patients with internal aneurism may live comfortably for a long time, provided they do not have to do heavy work. I believe that aneurism is a good deal like heart disease. There are aneurisms and aneurisms, just as there is heart disease and heart disease. I recall a somewhat similar case which was published in a journal a few years ago. Aneurism of the subclavian was diagnosed, and operation performed. The patient died, and no aneurism was found.

Dr. M. Price: I would ask Dr. Roberts if he ever saw a case of subclavian aneurism where there were not some external and positive symptoms near the artery? Is it exactly conservative surgery to tie the subclavian artery without some external symptoms of so serious a condition?

Dr. Roberts: In this case there were external symptoms of subclavian aneurism. There was dulness under the clavicle, and there was a distinct thrill when you placed the hand under the clavicle. There was apparently a marked difference between the radial pulses on the two sides. During one period of the treatment the right pulse was barely perceptible. As subclavian aneurism progresses, it nearly always bulges up into the neck and outward through the ribs. It was the absence of this, after several years' progress, which led me to doubt the correctness of the diagnosis.

Hospital Notes.

CHARITY HOSPITAL, NEW YORK.

SERVICE OF DR. JAMES J. REID.

REPORTED BY J. R. CROFTON, M. D.,
HOUSE PHYSICIAN.

Intussusception Masked by Abortion.

A woman entered the hospital January 30, 1890, giving a history suggestive of threatened abortion. The pains were of the ordinary character, coming on at intervals and associated with uterine contraction.

A vaginal examination showed no dilatation of the os. Morphia, in doses of three-eighths of a grain, was sufficient to control the pains.

No special change occurred until February 3, when labor pains came on, and in a short time a still-born child of seven months was born. After delivery the case progressed without any untoward symptoms for four hours, when profound exhaustion supervened, terminating in death after five hours.

Autopsy.—On opening the abdomen there was found to be an invagination of the intestines above the ileocecal valve, which had passed on to the gangrenous stage.

The special interest of the case rested on the fact that there were no indications of intestinal trouble. The nurse reported a movement of the bowels on each day after admission, and on the day of the woman's death there was diarrhœa. There was tension of the abdominal wall before death, but not much attention was paid to it, as the patient was hysterical from the time of her admission until her death.

Periscope.

Trephining for Hemorrhage in the Cranium.

In the *Medical News*, Feb. 15, 1890, Dr. John B. Deaver says: Apparently much has been done in the past two years in brain surgery, and by far the greatest number of operations and reported successes have been for focal or Jacksonian epilepsy. In this class of cases the immediate results have been good, but we cannot say this of the remote; and, therefore, in my judgment, I consider that beyond giving temporary relief, or beyond holding the trouble in abeyance for a time, these operations have accomplished most in demonstrating the amount of manipulation the brain is capable of permitting, providing that this is done by skilled hands, and that every possible antiseptic precaution is taken. Again, the lateral ventricles have been tapped, but this offers no more than temporary relief. It does not by any means remove the factor which is slowly but surely killing the patient. This is true to a great extent in the case of tumors, as we know that the most common brain tumors are tubercular, sarcomatous and syphilitic, and therefore in the event of their successful removal the patient is not restored to a normal condition, but is left crippled. The more favorable results have been obtained in tumors springing from the dura mater or membranes, and which are not strictly tumors of the brain substance, but invade it by pressure, excavating for themselves a bed or nest.

Trephining for intra-cranial hemorrhage, particularly of the extra-dural variety, if done early, is in every sense a life-saving agent, practical as well as permanent in its results in the majority of cases. Of the varieties of intra-cranial hemorrhage we have four:

1. Where the blood escapes or finds its way between the inner wall of the cranium and the dura mater.

2. Where it finds its way into the subdural space.

3. Where it finds its way into the sub-arachnoid space and into the meshes of the pia mater.

4. Where it escapes into the substance of the brain or into the ventricles.

When blood is poured out between the dura mater and the bone, in cases of fracture, the vessel that is torn, as a rule, is the middle meningeal artery. Mr. Jacobson has shown that the branches of this artery are more frequently ruptured than the trunk. The vessel is very frequently torn at the point where it crosses the anterior inferior angle of the parietal bone. The reasons for this are: 1. That the bone at the site of the groove for the artery is very thin. 2. That the vessel is so frequently buried in the bone that fracture without laceration of the vessel is hardly possible. 3. That this part of the skull is peculiarly liable to be broken.

It has been shown that the artery may be ruptured by force sufficient to occasion detachment of the dura mater, but not great enough to fracture the skull. Next to the middle meningeal, the most frequent source of extra-dural hemorrhage is the lateral sinus.

The dura mater is very intimately adherent to the bone at the base of the skull; therefore this variety of hemorrhage in this situation is barely possible. Over the vault of the cranium its attachments are comparatively loose, except along the lines of the sutures. Bell has pointed out that the dura mater of the vault may be separated from the bone by the vibration produced by a blow. Strike the skull of the subject with a heavy mallet, and on dissecting you find the dura mater shaken from the skull at the point struck. Repeat the experiment on another subject, and inject the head minutely with injection fluid, and you will find a clot of injection lying between the skull and the dura mater at the part struck, and having an exact resemblance to the coagulum found after a violent blow on the head. Tillaux has demonstrated that the adhesions between the dura mater and the bone are particularly weak in the temporal fossa, the most usual site of meningeal hemorrhage.

In the diagnosis of extra-dural hemorrhage the following points are to be observed: The mental condition may be normal, or there may be cerebral irritation. Unconsciousness, complete or incomplete, or coma.

Both pupils may respond to light normally. Both may be dilated, and show no response; or one may be widely dilated, and the other normal. When the dilated pupil corresponds to the injured side, it is caused, as pointed out by Hutchinson, by the pressure of a large clot, extending deeply down into the base of the skull, on the cavernous sinus, leading to fulness of the vessels, with protrusion of the eyeball and dilatation of the pupil. It is also accounted for by compression of the oculo-motor nerve, through the medium of the clot. Respiration may be sterterous, or Cheyne-Stokes in character. The pulse may be little changed, or rapid and feeble, depending largely on the severity of the concussion, or slow and full, depending upon the severity of the compression. The limbs may present any of the following conditions: Hemiplegia, well or but little marked; monoplegia, paralysis, twitching, convulsions or spastic rigidity. On the scalp may be marked contusion, or bagginess due to the injury; the latter also due to leakage from within the cranium through a fissured fracture.

The stages presented by a typical case of extra-dural hemorrhage are these: 1. Complete or partial unconsciousness, the result of the concussion or shock, caused by the fall or blow, as the case may be. 2. Consciousness or lucidity. This stage may vary in length from a few minutes to several hours.

I have observed that a very large hemorrhage may produce compression at once; my observations being verified by *post-mortem* examination. Compression may also côme on immediately, caused by co-existing depression of bone, injury to the brain and alcoholism.

I do not think it out of place to tabulate my rules for trephining in this class of cases: 1. In simple depressed fractures of the skull, with or without symptoms of compression. 2. In compound depressed fractures, with or without symptoms of compression. 3. In punctured or incised fractures, fractures of the orbital plate of the frontal bone, and punctures of the cribriform plate of the ethmoid, applying the trephine to the roof of the orbit at the inner angle, thus opening up the most dependent part of the cerebral fossa, thereby favoring drainage, which is the chief indication in this class of injuries. 4. Foreign bodies in the brain. 5. Impacted fractures in gunshot wounds. 6. In gunshot injuries of the skull. 7. In contusions of the scalp simulating depressed fracture I expose the wall of the cranium at the seat of the con-

tusion, when, if I find a depressed fracture, I trephine. If a fissured fracture, I trephine if there is any hemorrhage through the line or lines of the fracture.

Protection for the Water Supply of the City of New York.

From an article by Dr. Robert Grimshaw in the *Sanitarian*, February, 1890, we learn that the State Board of Health of New York, through its engineers, has made a thorough examination of the water-sheds from which come the water used for drinking in New York City, and has established around every lake, pond or reservoir adjacent to every spring, stream or natural water-course a marginal zone having a width of 50 feet around all lakes, ponds and reservoirs, and 30 feet adjacent to the tributaries. Within this zone it is intended to exclude every kind of contamination above or below the surface. The Board has also established a secondary zone of 200 feet wide around lakes, ponds and reservoirs, and 100 feet on each side of tributaries, within which it is the intention to prevent defilement of surface soil and subsoil, due restrictions having been made as to the manner of maintaining sources of actual or possible pollution. Solid organic wastes must be retained upon the surface of the ground or transferred by natural agencies over such distances as will render their entrance into the waters highly improbable. The Board of Health, of course, recognizes that the zone should in theory be of a varying width, according to the geological or topographical conditions; thus, for rocky or other impervious strata covered by only a fine layer of very porous material, like gravel, or for cases where the entire soil is of such porous substance, the distance should be increased. The reason why this zone of safety is narrower in the case of streams than in that of lakes into which they flow is that it is supposed that in the case of streams the material will have time to be purified by aëration, diffusion, etc., before it reaches the still waters.

The term "edge" of the stream is understood to be the margin when the water is highest; and where there is a very steep bank, the edge of the bank is counted rather than that of the body of water at its foot.

These rules apply only to putrescible matter, that which is non-putrescible being left to be disposed of according to the general sense of decency of the people of the place.

The Board also suggests that in the case of dead animal matter which may be buried in the ground outside of the zone, or prohibited limits, decomposition be hastened by quicklime and other such agents. Great danger has been shown to accrue from the leachings of cemeteries, the distance to which these fluids will penetrate being very great, and it is recommended that all future interments within 250 feet of the margin of the water supply be prohibited.

There are also recommended certain restrictions as to the use of manures, especially those into which human excreta enter; such restrictions being concerning the quantity employed, their concentration in any one place, etc.

The rules call for the abolition of all places for the deposit of human excreta within 50 feet horizontal measurement of the high-water mark of any lake, pond or reservoir, and 30 feet of any stream; and in the case of larger vaults these limits are extended to 250 and 130 feet respectively. All such places of deposit shall be arranged with water-tight receptacles, from which the material may be removed to some place of ultimate disposal.

The throwing of house-slops and garbage into any body of water, or into any place where it will reach any body of water within the 50 and 30 feet zones is prohibited.

Stables, pig-sties, hen-houses, and the like may not be maintained within 100 feet of any lake or 50 feet of any stream.

No interment may be made within the entire water-shed within the 250 and 130 foot limits.

The Board reserves the power to extend the limits of these safety zones in any place, if it be found that, by reason of special peculiarities of soil or slope, such extension is necessary.

Artificial Tongue.

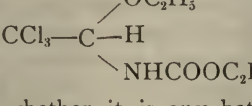
Dr. Poncet, of Lyons, has invented an artificial tongue for improving articulation in cases where that organ has been extirpated. The apparatus consists of a "pocket" of soft rubber containing fluid, and jointed on to a plate which is fixed to the lower teeth. "A patient wearing this apparatus can eat and speak quite satisfactorily, and there is no dribbling of saliva, the latter being swallowed as in health."—*Edinburgh Med. Journal*, Feb., 1890.

State Medical Reform Obstructed by the Legislature.

At the last meeting of the Medical Society of the State of New York, Dr. St. John Roosa presented the report of the Committee on Legislation. This document embodied the experiences of the committee in its efforts to secure legislation at the hands of the Senate. The first bill had been one to regulate the detention of persons suffering from acute and chronic insanity in State rather than in county asylums. It was thought that if the political element could be eliminated from the contest the bill might ultimately stand a chance of becoming law. The committee, supported by efforts on the part of the State Charities Aid Association, the New York Academy of Medicine, and the Neurological Society, had labored faithfully on behalf of this measure. It had been passed in the Senate but was negatived in the Assembly. Persistence would probably eventually insure success. A bill had been framed providing for a State board of nine examiners to be selected by the Board of Regents. Five members of this board were to be appointed on the recommendation of the State Medical Society, three on that of the Homœopathic, and one on the recommendation of the Eclectic Society of the State of New York. A section of this bill had been so framed that if a graduate of a homœopathic or eclectic college so desired he might select his own examiner from the board on the subjects of theory and practice and materia medica. The merits of the bill had been earnestly advocated at the various meetings of the committee of the Senate having it in charge. It had, however, met with the opposition of the homœopathic and eclectic schools, the latter institution having been represented by counsel. The opinion of the Senate committee was that with such conflicting views among the doctors it would be useless to make any report upon the bill, which had accordingly died peacefully in committee. Every plan for securing the passage of a bill regulating the practice of medicine in New York, with the view of having the largest body of practitioners afforded the greatest representation on the Board of State Examiners, had been tried, but in vain. At the present time there was a bill pending in the Legislature calling for the appointment of three State Boards of Examiners, one for each of the before-mentioned schools. This was absurd. The hydropathists, electropathists and vaporpathists would next be asking for a State Board of Examiners. There was nothing left but to advocate that though the colleges might have a right to grant the degree of doctor of medicine, the State, through its own lawmakers, should regulate the practice of physic in the State of New York. This would at least prevent the mushroom graduate of colleges in neighboring States from practicing side by side, with the same rights and privileges, with the State licensed practitioner. During the year a bill had been passed, without the action of the society's committee, making it obligatory upon students entering a medical college to show certificates of previous academic training equivalent to the regent's examination, or, failing this, to oblige them to pass an examination on the preliminary academic studies. —*N. Y. Med. Journal*, Feb. 15, 1890.

Somnal.

The hypnotic named "somnal" by Radlauer (*Journal de Médecine*, October 20, 1889) has a formula of $C_7H_{12}Cl_3O_3N$, and is a mixture of alcohol, chloral and urethan. Its fusion-point is 42° C. It has been used in doses of 30 grains in the form of a solution sweetened with syrup. It is claimed to exercise no unfavorable action upon the pulse, respiration or temperature, and by the author is stated to possess the properties of chloral and urethan without possessing their after-effects. It is stated to be unaltered by acids or silver nitrate. It has been claimed by Lutze (*Pharmaceutische Zeitung*, October 26, 1889) that the term "ethylized chloral-urethan" is simply a blind, and that the so-called new product is nothing more than chloral-utheran, or ural, under a new name. This statement has, however, evoked a denial from Radlauer (*Pharm. Journ. and Trans.*, November 2, 1889) who affirms that "somnal" is a product of the direct combination of chloral alcoholate and urethan in a vacuum apparatus, and that its composition is correctly represented by the formula:



As to whether it is any better than the other hypnotics remains to be seen.—*Therapeutic Gazette*, Dec. 16, 1889.

THE
MEDICAL AND SURGICAL
REPORTER.

ISSUED EVERY SATURDAY.

CHARLES W. DULLES, M.D.,
EDITOR AND PUBLISHER.

N. E. Cor. 13th and Walnut Streets,
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NEVER ROLL A MANUSCRIPT! Try to get an envelope or wrapper which will fit it.
When it is desired to call our attention to something in a newspaper, mark the passage boldly with a colored pencil, and write on the wrapper "Marked copy." Unless this is done, newspapers are not looked at.
The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

CHLOROFORM AND THE HYDERABAD COMMISSION.

The readers of the REPORTER have already been presented, in an Editorial in the issue of February 8, 1890, with a summary of the conclusions arrived at by the Hyderabad Commission in regard to the value and relative safety of chloroform as an anæsthetic. It is well, however, for them to bear in mind that these conclusions are not in accord with the opinions of many able and experienced observers in Europe and in this country. For this reason they are undergoing close and critical scrutiny all over the civilized world, and especially in Great Britain, where the report was made public. The English medical journals are full of remonstrance against several of the most important conclusions of the Commission. These were briefly re-stated at the meeting of the Medical Society of London, February 10, 1890, by Dr. Lauder Brunton, who, among other things, said that the conclusions arrived at by the Commission had already been published, but he thought that the main value of their work lay in the number of experiments that had been done, which had been recorded graphically, and which would be printed and circulated so that they might be available to all, and the conclusions of the Commission concerning them might be criticised, and, where necessary, corrected. Syme attributed the absence of fatalities in the use of chloroform at Edinburgh to two facts—that very pure chloroform was used, and that plenty of it was given. Dr. Brunton said it occurred to him that one reason of the deaths from chloroform might be the neglect of the second of Syme's dicta; for many of the deaths appeared to be due to shock, and to occur at the beginning of an operation. Syme taught also that, in administering chloroform, one should watch the respiration and not mind the pulse; and Dr. Lawrie, in the first Hyderabad Commission, instituted a series of experiments to show that the respiration failed before the pulse. In the first Commission 141 animals were used, and they all died of respiratory failure. The second Commission was inaugurated to repeat and extend these experiments, and 430 animals were used with a similar result; in the entire 571 animals the respiration failed before the heart. It might be said, Dr. Brunton remarked, that two chief theories were promulgated regarding the action of chloroform: one, which might be called the Edinburgh theory—that chlorform paralyzed the respiration, but did not paralyze the heart; and the other, which was chiefly current in London—that chloroform paralyzed the heart, and that this was the chief source of danger. Chloroform, he said, was more potent than ether, which latter could not be used in very hot countries, and the chloroform should be given with plenty of air, for suffocation and chloroform formed a deadly

combination. The deaths from chloroform were due to asphyxia and resulted from imperfect observation of the respiration. During the prosecution of the research they had a large number of accidental deaths, but all these were due to inattention to the respiratory condition. The pulse did not begin to fail till after the respiration, and if the respiration were not attended to till after the pulse had failed it was probably too late. If attempts were made to pay attention to both the respiration and the pulse, neither perhaps would be observed well, and hence it was advisable to keep the attention fixed on the respiration alone.

To these conclusions it has been replied that they do not accord with actual experience in surgical practice, and that the fact that they rest entirely upon the results of experiments upon the lower animals weakens their force when it is attempted to apply them to human beings. In addition, specific exceptions are taken to a number of the assertions or assumptions of the Commission in regard to both ether and chloroform administration. The Glasgow Chloroform Committee has announced that some of the inferences of the Commission are opposed to theirs, and that it believes them to be also opposed to the facts stated in the report itself. The members of the Committee therefore propose to criticise the report after its report is fully published.

From this, it will be seen that it would be premature for American medical men to adopt as final the conclusions of the Hyderabad Commission or to modify any methods of practice to which their study or experience has already led them. The whole subject is still unfortunately in an unsettled condition, and we must wait longer before we can pronounce upon it finally.

EXECUTION BY ELECTRICITY.

The committee appointed to test the efficiency of the electrical apparatus which has been placed in the State Prisons of New York, for the execution of criminals, has reported to the Superintendent of Prisons, as a result of their investigations, that they entertain no doubt as to the efficiency of the dynamos to accomplish the work for which they are intended. In commenting on this report one of the members of the committee, Dr. A. D. Rockwell, has expressed his conviction that the sentiment against hanging and in favor of some method quicker and less repulsive is rapidly strengthening, and that electricity will eventually replace the rope in all the States. In this connection he refers to the fact that Mr. Edison, while in Paris, during the Exposition, gave his opinion so positively in regard to its efficiency that the medical section of the French Academy of Sciences has already begun to investigate this subject, aided by Marcel Duprez, a prominent electrician. He further said that it is a mathematical impossibility that any human being receiving in proper form an electrical current of lethal energy should appreciate, even for a fraction of a second, the slightest pain. It has been ascertained that the brain is one-twenty-fifth of a second in recognizing an impression and one-twenty-eighth of a second in telegraphing that an impression has been received; and, as nerve force travels only about one hundred feet in a second, while the velocity of the electric current is millions of times greater than this, the brain has absolutely no time to appreciate a sense of pain. At the *post-mortems* after accidental deaths by electricity that Dr. Rockwell has seen, no gross lesions or rupture of tissues has been found. The nerve centres and heart are instantly paralyzed and life ceases. The commission appointed by Gen. Lathrop, Superintendent of Prisons, have tested every dynamo in the various prisons, have killed animals, large and small, by various degrees of current strength, and have amply tested the possibilities of resuscitation after the electric stroke. These investigations and experiments have fully convinced the Commission

that it ought to supplant everwhere the barbarous method of hanging.

These opinions are very interesting, and deserve careful consideration; but it is proper to add to them that there is every reason to believe that hanging is a painless mode of execution. It is true that accident sometimes makes a hanging a horrible blunder; but the same may be true of electrical execution before long. When accurately accomplished we believe hanging would be as painless as electrical execution. Were this not so there would not be so many cases of suicide by hanging when the feet were touching the ground. It is not pleasant to have to discuss this subject; but, if it be discussed, one must be careful to do it with strict impartiality.

AN EPIDEMIC OF PUERPERAL FEVER.

In singular contrast to the radical statement of the extreme advocates of antisepsis in obstetrics comes the announcement that a recently built, well equipped maternity has been closed because puerperal fever is epidemic within its walls. Just as the statement had become universal that puerperal fever could never become epidemic with modern methods of treatment it becomes epidemic, and in a hospital held up as a model to students. There can be but one of two conclusions, that antisepsis is not so efficient as was thought, or that its principles and details have not been properly carried out in the case in question.

It is pertinent to inquire what obstetric antisepsis is. It is the best substitute devised by science for that condition of freedom from poisonous matter in which the perfectly healthy aseptic woman passes through labor. It consists in raising a wall of chemical protection about the parturient woman, destroying poisonous and contagious matter before it can gain access to her body. Where the possibility of contagion can be excluded it is unnecessary, but when such possibility cannot be secured it is conservative and rational. Theoretically, asepsis, which is nature's condition, is the ideal condition; practically, antiseptic precaution must be taken to secure asepsis. The most extensive study of hospitals shows that the individual doctor, student or nurse is the greatest danger to the patient. Puerperal poisoning from pathological processes in the woman's body or from hospital air, walls or furniture is comparatively infrequent, when contagion from the manipulations of individuals is considered. All manipulations which require interference with the genitalia should be as infrequent as possible; delivery should be so conducted that the genital canal be invaded as rarely as possible. Students are instructed in maternity wards to the distinct risk of the patient, a risk lessened, but not removed, by discipline in the use of antiseptics. Hands and instruments should be antisepticized by a chemical or by heat. Clothing and bedding and the patient herself must be clean.

The gist of modern antisepsis in obstetrics is the personal responsibility which each individual who touches the parturient assumes, that he or she does not poison her. The healthy woman in cleanly surroundings may be attended by a physician and nurse whose antiseptics may be abstinence from handling poisonous matter, and soap and water. And such are the conditions in many labors in private houses with private practitioners, where normal labors occur and a normal recovery follows. But in hospital practice as dangers increase so must vigilance; a septic case may be brought into a hospital from without, but it should end with that patient.

While hospital managers share with the physician the responsbility for the sanitary condition of a hospital, the responsibility for an epidemic of puerperal fever among patients rests with those who examine and deliver them. It is not the question of the finish upon walls, but the finish upon fingernails and hands which is important. The thousands of patients delivered yearly in the large institutions of Europe without an epi-

demic of puerperal fever shows that modern antisepsis in obstetrics is amply sufficient, and the present epidemic of puerperal fever must be taken as evidence of the value of modern antisepsis and the dangers which attend its imperfect performance. A further important safeguard for maternities consists in the separation of gynecological and obstetric cases. Pus tubes and cancer of the uterus are not proper neighbors for pregnant or parturient women. The present tendency to relegate obstetrical cases to students and midwives and to build a reputation as an obstetrician upon the number of laparotomies performed by an individual will not further science or the welfare of patients. And some enthusiastic laparotomists have possibly to appreciate their responsibilities in the management of obstetric cases, and the field which these cases open for study to minds even as richly endowed as theirs.

MEDICAL EDUCATION AGAIN.

The *Kansas City Medical Record*, February, 1890, contains an Editorial, in which it is stated that at a meeting of the State Board of Health of Missouri, January 21, 1890, the question of medical education was considered, and that for some time the medical authorities of the State had proposed to follow in the steps of the Illinois Board of Health, the Iowa Board and others, because they could not, in justice to themselves and their schools ignore the demand of their neighbors.

Contrary to expectation, most of the colleges of Missouri are in sympathy with the suggestion to inaugurate a longer and more complete course of study in the medical schools, and have promised to make the three years' course necessary for graduation. It is very probable, therefore, that after the spring of 1891 no man can be graduated in medicine, from any reputable college of Missouri, until he has completed three years of medical instruction. The *Kansas City Medical Record* very justly says, that when this rule is generally established the diplomas from that State will be recognized throughout the United States, and if a graduate fails to secure a license to practice in any State it will be because of his own deficiencies and not the fault of his alma mater.

It is with pleasure that we welcome this evidence that the number of those who are willing to do more than talk about raising the standard of medical education is increasing, and that the Western schools have the courage of their convictions. When will Bellevue try it again?

CREMATION.

In the department of Correspondence we publish a letter from a physician who dissents from the notion that cremation is to be recommended as a general mode of disposal of the dead. We are glad to do this; because the method adopted to get opinions on the subject could not secure those of very many men whose opinions are quite as valuable as those of the men represented in the REPORTER when the discussion was going on.

There is a good deal in what our Correspondent says in regard to the relative unfitness of men who hold the body of the dead in such light esteem for determining what is best to be done with it in general. But physicians may express rational and authoritative opinions as to the question of hygiene involved, and then the community, with well-informed minds, can decide what is best and most acceptable to their wishes and do it.

ELASTIC MUCILAGE.—Dissolve 1 part of salicylic acid in 20 parts of alcohol, add 3 parts of soft soap and 3 parts of glycerine. Shake thoroughly and add the mixture to a mucilage prepared from 93 parts of gum arabic and the requisite amount of water (about 180 parts). This mucilage keeps well, and when it dries remains elastic without tendency to cracking.

Book Reviews.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the Reporter.]

A MANUAL OF ORGANIC MATERIA MEDICA, being a guide to materia medica of the vegetable and animal kingdoms, for the use of students, druggists, pharmacists and physicians. By John M. Maisch, Ph. M., Phar. D., Professor of Materia Medica and Botany in the Philadelphia College of Pharmacy. Fourth Edition. With two hundred and fifty-nine Illustrations. 8vo, pp. 529. Philadelphia: Lea Brothers & Co. 1890. Price, $3.00.

The essential features of Maisch's Materia Medica are now so well known that it is unnecessary to dwell upon them. The first edition was published eight years ago, and the present is the fourth edition. This fact of itself indicates the popularity of the book, and it is a pleasure to say that the popularity is founded on intrinsic merit. The author's long experience as a teacher has enabled him to write a book that is direct and succinct, but is not cursory or superficial. The essential physical, histological and chemical characters of the organic drugs are given, together with the names of the proximate principles, the medical properties of the drug, and the dose. The illustrations are exceptionally clear and beautiful.

To say that the book has been subjected to thorough and careful revision is to say that it possesses all the merits of the preceding edition, plus the advantage that comes of containing the results of all important new investigations. We cordially commend the book to our readers.

A TREATISE ON MATERIA MEDICA, PHARMACOLOGY AND THERAPEUTICS. By John V. Shoemaker, A. M., M. D., Professor of Materia Medica, Pharmacology and Therapeutics in the Medico-Chirurgical College of Philadelphia, etc., and John Aulde, M. D., Demonstrator of Clinical Medicine and of Physical Diagnosis in the Medico-Chirurgical College of Philadelphia, etc. In Two Volumes. Volume I. Devoted to pharmacy, general pharmacology and therapeutics, and remedial agents not properly classed as drugs. 8vo, pp. xii, 353.

There is good reason for the appearance of a new work on Materia Medica and Therapeutics to-day. A large number of new remedies have been discovered and manufactured within a few years, and the medical journals are full of observations upon their physiological action and therapeutic use. So rapid has been the progress in the department of therapeutics that a book is certain to be behind the times before it is issued from the press. Nevertheless, a carefully written book on the newer remedies would be heartily welcomed by every practitioner of medicine.

The first 141 pages of the book before us are taken up with materia medica, pharmacy and pharmacology and therapeutics. The first is defined and the names of the recognized remedies are given. Under pharmacy, the different operations employed are described, and the various pharmaceutical preparations, such as waters and extracts, are defined and their usefulness indicated. The authors state, under pharmacology and therapeutics, that the classification of remedies adopted is largely that of Garrod, modified to some extent by Brunton. Much valuable information is contained in these pages; but it impresses one as being ill-digested, and it is not presented systematically.

The second part is devoted to the consideration of remedies not properly classed with drugs. Here electro-therapeutics has a place together with metallotherapy, transfusion, hypnotism, earth dressing, and Baunscheidtismus, together with climatology, music, light, blood-letting and suspension.

From this it may be inferred that the authors have attempted too much in this work. In endeavoring to present a complete synopsis of therapeutics as it exists to-day, they have included much that is nearly, if not quite, worthless, while the really important has not been given due prominence. As regards the literary style of the book, it cannot be pronounced other than faulty. The choice of words is frequently unfortunate. For instance, on page 139, in speaking of feeding patients, when the stomach cannot be used, they say: "We have to *improvise the rectum* for the purpose!" On page 125, it is stated that the "letter ℞" was "originally used as an appeal to the *planet* Jupiter." ℞ is not a letter, and if it ever had any reference to Jupiter it was to the god of that name.

NINTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF NEW YORK. 8vo, pp. 610. Paper. Albany: The Troy Press Company. 1889.

This large volume contains the report of the State Board of Health of New York for the year 1888; and, like most State publications, comes a little late to market. But it is a volume of great interest and value to persons interested in matters of public health. The drainage and sewerage of the State are fully discussed and there is a very complete account of the measures adopted to protect from pollution the water-supply of the city of New York.

Literary Notes.

—The *Illustrated News of the World*, which is the American edition of the *Illustrated London News*, contains every week a great variety of interesting matter, abundantly illustrated. It is especially rich in illustrations of life in Oriental and African countries, and of explorers and their adventures.

New Remedies and Appliances.

In this department, notice will be given of Remedies, Food Articles, and Instruments or Surgical Appliances of which specimens are sent to the Editor.

The aim will be to make this department bear the same relation to these articles as the department of Book Reviews now does to books.

Peptonized Cod-Liver Oil and Milk.

We have received a specimen of peptonized cod-liver oil and milk from Messrs. Reed & Carnrick, which is a very handsome, smooth and palatable preparation. It is said to contain fifty per cent. of pure Norwegian cod-liver oil. It is miscible with water, and when so mixed is pleasanter than when it is taken pure. It seems to keep well even when exposed to the air, and the oil does not separate from the emulsion.

CORRESPONDENCE.

Cremation.

To the Editor.

Sir: I have noticed in the Reporter for several numbers past, the opinions of various physicians on the subject of cremation.

If your object is to get at the sentiments of the "people," I think you are not pursuing the right course. As it used to be a principle of the common law that no butcher was allowed to sit on a jury where life was liable to be at stake, lest the finer regard for life should be blunted by the habitual witnessing of the infliction of death upon the brute creation, so I think a question as important as what is to become of our mortal remains should not be left to those who make so light of the remains of others. Men who are in the habit of handling the remains of others as though they were sticks of cord-wood and only worth the amount of fuel there is in them, are hardly proper judges where the feelings of others are concerned.

Cremation is a relic of barbarism which has passed almost out of existence, wherever Christianity has been introduced. It is a mere matter of feeling, I admit; so it was in India, when they cremated the live widow along with the remains of the dead husband.

The plea, that it would save the health of the living, is a plea, far-fetched, and of but little force, so far as ordinary circumstances are concerned. If such a condition of affairs should take place as that there were no places left to bury the dead in, it would then be time to provide crematories; but as it is a mere matter of sentiment, why not cremate the diseased ones before they die and begin to exhale those dreadful poisonous molecules which, according to some of the wise ones, fill the earth, seas and the heavens above; which nothing short of that final cremation of all things will disinfect?

I see some of the physicians place great stress on the fact that some eminent men among the profession have requested that their remains be cremated. This I deem "the most unkindest cut of all." Dr. Gross, for instance, after having dissected the remains of thousands of his fellow-creatures, and having made use of them in every other way by which he could, or thought he could, obtain information, when he found his time was about up, like the Veiled Prophet, determined that no profane eye should gloat over his remains, and so ordered them to be burned. Yours truly,

J. D. Gray, M. D.

Tallyrand, Iowa,
March 1, 1890.

NOTES AND COMMENTS.

Danger of Mercury in Syphilis when Diabetes is Present.

Dr. E. Güntz, of Dresden, writes in the *Medical Press*, Feb. 5, 1890:

It is well known that rubbing in mercurial ointment has been much lauded, and practiced in syphilitic cases where diabetes is concurrent, which experience, as might be expected, proves to be a dangerous method of treatment. It is fallaciously accepted that mercury taken into the system in this way diminishes the amount of sugar in the urine, and even causes it to disappear! This disappearance of sugar is only a suspension of the conversion of albumin into sugar. When the sugar diminishes the albumin increases in a greater degree than if no mercury had been used. This may be demonstrated by weighing the ingredients of the excreta, and the rapid reduction of the body under the use of mercury. This inanition is owing to the assimilation ceasing at an early stage of the transition, but when the sugar disappears, as it does before death, the urine contains a greater proportion of urea. As many syphilitic patients are simultaneously affected with diabetes it is important to bear this risk in mind. A very good example of a strong, healthy, robust looking man, 30 years old, who nine years prior to consulting me had suffered from syphilis, was now anxious for my opinion as to whether he could entertain marriage with safety. He subsequently married, and two years after this the wife came to me with a child, having a rash with a syphilitic appearance. At one and a half years the child was running, and at eleven it was suddenly seized with fits which soon disappeared without treatment, but at sixteen the eyes became affected, and other weakness which confirmed syphilis. Five years after the marriage the father of the child consulted me about a hard surface on the angle of the mouth and tongue with infiltration of syphilitic origin. Balanitis and diabetes soon presented themselves when four per cent. of sugar was present. He went to

different medical institutions where he was put on diabetic diet, and afterwards returned to me in a moribund condition, with four per cent. of sugar in urine. He asked me if he might use this ointment, which in his syphilitic hypochondriacal ideas I found he had been using at the advice of friends for a year. At last he went to a salt-water institution, which is worst of all for diabetic patients as it increases the urea and greater destruction according to Bennecke.

The best treatment in cases of syphilis and diabetes combined is any of the chromate preparations, but more particularly the chromate water lately introduced into the profession by O. Lische of Dresden. All the chromates, after a long use, are sources of danger by producing sclerosis in the tissues, but when given in doses of 0.06 grm. (about one grain) to 30 grms. (about one fluid ounce) of water they become perfectly harmless, and more particularly when combined with carbon as in O. Lische's preparation.

Quackery in Illinois.

The Illinois State Board of Health looks sharply after the quacks who invade that State and exposes and puts a stop to some curious performances. At the last meeting of the Board, Dr. Rauch reported that, in 1889, suit was brought against the Oregon Indian Medicine Company, as itinerant prescribers and vendors of medicine. Suit was brought and trial set for October 1, but the defendants left during the night and judgment was taken by default, the fines amounting to $1,700. Five suits had been commenced against "Dr." Oregon Charley and four against the manager of the concern, Col. T. A. Edwards. This company was the same that visited a number of towns in Northern Illinois, giving free consultations to the sick, prescribing medicines during the day, and at night lecturing in public halls, giving dramatic entertainments and operatic performances; then selling such Indian medicines as Modoc Oil, Worm Eradicator, and Katonka.

The following recently came under Dr. Rauch's notice, and is given as an illustration of the methods of some of these traveling prescribers and medicine vendors: An itinerant from Iowa appeared in Hancock county, selling medicines, extracting teeth and prescribing. He would ask for certificates of cure from those he treated, who, having granted them, found to their surprise that these certificates were notes of hand for amounts varying from $25 to $50, which they would be obliged to pay. These last two are the only attempts made during the year in Illinois by itinerant vendors.

If more States had such devoted and able men as Dr. Rauch on their Boards of Health it would be a good thing for the country.

Prizes to Biological Students.

From a desire to verify his own researches as to the causes of failing nutrition in aging organisms, C. A. Stephens, Norway Lake, Maine, offers three prizes of $175, $125 and $100 for the best three comparative demonstrations, by means of microscopical slides, of the blood capillaries in young and in aged tissues, canine or human. By young tissues (canine) are meant tissues from animals between the ages of one and three years. By aged tissues (canine) are meant tissues from animals not less than twelve years of age. By young tissues (human) are meant tissues from subjects between the ages of ten and twenty years. By aged tissues (human) are meant tissues from subjects not less than sixty-five years of age.

While a preference will be given to demonstrations from human tissues, it will be possible for work in canine tissues to take the first and, indeed, all of the prizes. But of two slides equally well done in all respects, one canine, the other human, the latter will be given the preference. Canine tissues should be from large animals. Twelve slides from young, and twelve from aged tissues must be submitted by each competitor, together with a full description of the subjects, methods pursued, and every detail and circumstance which is likely to throw light upon, or account for any peculiarity. The slides are for comparison as to the condition of capillary circulation, the young with the old, and should be in numbered pairs, or groups from the same kind of tissue. The term tissue is used in a general sense, *e. g.*, pulmonary tissue, hepatic tissue, renal tissue, osseous tissue, muscular tissue, nerve tissue, alimentary tissue, etc.

No particular schedule of methods for injection, or staining, will be insisted upon, and no more definite directions or explanations will be given. The slides, carefully

packed and boxed, together with descriptive manuscript, can be sent by mail.

It is stipulated that the demonstrations which receive the prizes shall become the property of the subscriber for publication. All others will be returned, if desired.

No pseudonyms are required. Accompany slides in every case with real name and address. Unless of known reputation as a biologist, a reference is respectfully solicited. No award will be made unless work of at least ordinary merit is submitted.

This offer will remain open until August 20, 1890. Slides and manuscript will be examined and receipted for as soon as received. The prizes will be adjudged on the first day of October, 1890.

Embarrassing Suit for Malpractice.

The *Boston Medical and Surgical Journal*, Feb. 20, 1890, states that Dr. Deschamps, surgeon to the Hôspital des Anglais at Liége, a well-known writer on orthopedics, has lately had an action for malpractice brought against him by the parents of a child three and one-half years old, on whom he performed osteotomy. Gangrene set in and amputation of the leg became necessary. Dr. Deschamps has been condemned to pay about $1,500 to the child and about $200 to the father. The grounds of the decision were that the consent of the father had not been asked before the operation was performed, and that Dr. Deschamps himself had stated in one of his books that a period of six years should be allowed to elapse before osteotomy was carried out. Dr. Deschamps has appealed against the decision, and the matter has been taken up by the Medico-Chirurgical Society of Liége, the "Concorde Médicale" of Namur and other professional associations in Belgium which have determined to support him morally and materially.

A Chicago Editor on a Chicago Physician.

There must be a scandalous member of the medical profession in Chicago, for in the *Western Med. Reporter* (published in that city) for Feb., 1890, one of the Editors, Dr. Lydston, says, under the heading, "The Abortion Exposé:" "Many of our friends have suggested that our editorial of last month's issue was a little severe in the absence of 'positive proof,' etc. Don't worry, dear friends, there was not a line in the article that cannot be substantiated. The only regret that we feel is the consciousness, that as far as the evidence goes, we can but be convinced of the moral obliquity of a prominent member of the Chicago medical profession. Whenever any bright member of the profession prostitutes his talents for the purpose of securing the downfall of his brethren and his own aggrandizement, we are sorry for him and for the profession which he so ignobly represents. Our sorrow in this instance is only equalled by our contempt for the individual whom we are convinced is the guilty party. Contempt, however, is a mild term; such a man is beneath contempt."

This is certainly vigorous language, and more vigorous language which we do not quote follows it. If it is justified by facts, the profession in Chicago might well endeavor to purge itself of such a cause of offense as the editor of the *Western Medical Reporter* alludes to.

On Extirpation of Goitre in Graves' Disease.

In a report of this operation in *Brun's Beiträge zur Klin. Chirurgie*, vol. V, part I, 1889, Dr. R. Stierlin says that the few cases in which this operation had been done showed that it had a curative effect on the main disease. For other forms of goitre strumectomy finds its only indication in dyspnœa, but here it may be warranted in the absence of respiratory interference. Tillaux (1880) first reported a cure by this means. In 1884, Rehn published three cases, with more or less definite symptoms of Graves' disease, that were relieved or cured by this operation. (Rehn's fourth case is excluded by Stierlin). Bénard (1884) reported two cases, Josipovici and Wolff (1887) two cases, Przebicky and Mikulicz (1888) one case and Kocher several, as yet unpublished in detail. The results in these cases were very encouraging. Including his own, Stierlin counts twelve known cases.

His case was that of a seamstress, 19 years old. The patient's mother in her youth had suffered from goitre, but been cured by external application. A brother also had a goitre. With the patient this

first appeared five years and cardiac symptoms three months previously. The eyes were in every way free. He considers the case probably one of incipient Graves' disease. Typical extirpation of the goitre was performed by Professor Krönlein. The rapid and increased heart-action then gradually returned to normal (from 120-130 to 60-90). The previous dicrotic pulse became katacrotic. A slight dilatation of the left ventricle disappeared. The nervous restlessness largely subsided.

For comparison he took pulse curves of patients affected with simple goitre, before and after operation, and found that in such no alteration was produced. He was unable to make out from these successful operations in exophthalmic goitre any argument for or against the theory of its sympathetic origin. —*Annals of Surgery*, Feb., 1890.

Coaptation of the Eyelids.

The importance of securing coaptation of the lids in certain diseases of the eye is sometimes overlooked. Dr. Charles B. Taylor, in the *Lancet*, Feb. 8, 1890, tells of the case of a woman who was suffering from the effects of severe concussion of the brain, having been insensible for several weeks, and whose eyes had been wide open day and night. In consequence of this constant exposure the cornea of the left eye had become inflamed and ulcerated, and a similar condition of the right eye had caused such an extensive destruction of tissue that there was no chance whatever of saving the eye. By securing coaptation of the lids and the use of local remedies the left eye recovered, and the patient, whose strength was restored in this time, has now excellent sight. Dr. Taylor has since had a similar case in which only one eye was saved. Another patient, a woman thirty years old, who had lost both eyes from exposure came under Dr. Taylor's care some time ago, suffering from shortness of breath, palpitation, bronchocele and great prominence of the eyes. The patient was treated with compress bandages, galvanization of the cervical sympathetic, and constitutional remedies for three months, and was progressing very favorably when, owing to the expense of journeys from her home to the place of treatment, she was removed from Dr. Taylor's charge and placed in a charitable institution elsewhere. The disease appears to have become aggravated until it was quite beyond control, and now both corneæ have sloughed, and she is hopelessly blind. A similar case of Basedow's disease occurring in the person of a middle-aged woman was treated by Dr. Taylor some years ago. When he first saw the patient the right cornea had sloughed, and the contents of the eyeball had escaped, while the left was so extensively ulcerated from exposure that he had at first very little hope of saving the eye. By establishing, however, an artificial ankyloblepharon—that is, by paring the edges of the lids (well within the lashes, which should always be respected) and stitching them together so as to procure permanent adhesion, he was able to prevent further protrusion and retain the contents of the globe. This treatment with constitutional remedies sufficed to arrest the progress of the disease and heal the ulcerated surface in the space of five weeks, at the end of which time Dr. Taylor divided the adhesions, only, to his chagrin, to find the cornea almost entirely opaque. There was, however, one small area of clear tissue at its upper margin, opposite which he succeeded in making an artificial pupil, and as it was not safe to maintain the lids apart, he re-established the ankyloblepharon, leaving only a small hiatus between their margins just opposite the slit in the iris (artificial pupil), through which she has ever since had excellent sight, being able to read the newspaper and attend to her household duties. Bandaging for a few hours during the day or night will usually suffice to prevent damage in slight cases of exposure from loss of sensibility, but the more exaggerated conditions of protrusion will need the operation and treatment which have been described.

Insane Asylum in New York.

The New York State Commissioners of Lunacy recently resolved "that hereafter no license for the establishment and keeping of an asylum for the care, custody or treatment of the insane or persons of unsound mind, for compensation or hire, shall be granted except to a duly qualified medical practitioner of recognized professional skill and standing, who is a graduate of a legally incorporated medical college, and has had actually experience in the care and treatment of the insane."

NEWS.

—Dr. Arthur B. Meigs was elected a Trustee of the University of Pennsylvania, March 4, 1890.

—Dr. William C. Lane died February 4, at his home in Mercersburg, Pa., aged 65 years. His death was caused by an illness which followed an attack of the grippe.

—Dr. Edward W. Morley, Professor of Chemistry at Adelbert College, Cleveland, Ohio, was badly injured, March 1, by the explosion of a glass jar containing uranium.

—Dr. B. A. Watson, of Jersey City, has sustained a severe bereavement in the death of his only son, Henry T. Watson, who died of pneumonia, March 2, 1890, after an illness of one week.

—A home for destitute medical men and their widows and orphans is to be established in St. Petersburg, Russia, in memory of the late Dr. Botkin. The home will be given the name of the Botkin House.

—Dr. William Way Thomas, a prominent physician of Wilmington, Del., died March 3, at the age of 79 years. He was a direct descendant of Henric Way, who came to this country in 1630 with Governor Winthrop.

—Dr. J. K. Miller, of Somerset, Pa., died, January 1, 1890, in his fiftieth year. He was a graduate of Jefferson Medical College, at Philadelphia. After the death of Dr. H. Brubaker, Dr. Miller removed to Somerset to take his place, but survived him only a month.

—On February 27, a desperate attempt was made to assassinate Dr. Alexander Neil, one of the leading physicians of Columbus, Ohio, by an unknown man who asked him to go to see his wife and who presented a pistol at his head when he declined to go because he was ill, and offered to send some medicine.

—The gross increase in the national expenditure on drink in Great Britain for 1889, as compared with 1888, was £7,597,930, and was distributed as follows: On British spirits, £1,219,758; on foreign and colonial spirits, £521,732; on beer, £5,263,572; on wine, £592,868. The greatest increase was in the consumption of beer.

—Steps are being taken to organize a Medical Association in Chili. It is intended to include all the medical practitioners in the country. The object of the Association is "to give help to all members of the profession or to their families as often as they are in need of it." It has also been decided to form a Medical Association in Cuba.

—Physicians in the vicinity of Pittston, Pa., are said to be alarmed at the outbreak in Port Griffith, a mining town two miles south, of an epidemic which has all the symptoms of black diphtheria. Two deaths had already occurred from it by March 5, and there were over 35 persons now down with the disease whose recovery was regarded as doubtful.

—The trial of the action for libel brought by Dr. Morell Mackenzie against the *St. James' Gazette* for publishing disparaging articles in connection with his treatment of the late Emperor Frederick of Germany, was concluded February 28. The jury awarded Dr. Mackenzie £1,500 damages. In a similar suit against the London *Times* the jury awarded him £150 damages.

—Dr. Heinrich Frey, Professor of Anatomy in the University of Zürich, died on January 23, of an apoplectic seizure, which occurred in the course of an attack of influenza. He was well known in the scientific world by his works on the microscope and on histology, which have been translated into all the principal European languages. Professor Frey was in his 69th year.

—For the furtherance of the objects of the Tenth International Medical Congress at Berlin, and to facilitate the arrangements, steps are being taken to form committees in the various countries which are likely to be represented at the meeting. Already such committees have been formed in Holland under the chairmanship of Professor Stokvis, and in Denmark under that of Professor Lange. In Italy Professor Mosso and in England Sir Wm. MacCormac have undertaken to form similar committees, and it is hoped other countries will do the same.

—At a recent meeting of the Photographic Society of Geneva, Switzerland, Professor H. Fol presented a paper on resemblances of married couples. According to the *British Journal of Photography*, he stated that, out of seventy-eight young couples photographed for the purpose of his investigations, he found that in twenty-four cases the resemblance in the personal appearance of the husband and wife were greater than that of brother and sister, in thirty cases it was equally great, and in only twenty-four was there a total absence of resemblance.

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CLINICAL LECTURES.

FIBROMA OF THE BREAST; REMOVAL.—DEEP SEBACEOUS TUMOR OF THE NECK; REMOVAL.[1]

BY W. W. KEEN, M. D.,

PROFESSOR OF SURGERY, JEFFERSON MEDICAL COLLEGE.

Gentlemen: I ended my clinic last Wednesday with a case of scirrhus of the breast, which was ulcerated badly, and therefore was necessarily septic in its nature. The subsequent history, however, has been simply delightful. The patient wanted to sit up this morning, the fourth day. Her temperature, excepting immediately after the operation, has not been above 100°. You will remember also that the axillary glands were involved and I made a very thorough dissection of the axilla and removed all the fat and the glands all the way up to the clavicle; I removed also, you remember, all of the sternal portion of the great pectoral to which the tumor was adherent. I did this because Haidenheim has lately shown that here lies one of the most dangerous foci for return of the disease. The first case to-day is another tumor of the breast in which I shall pursue a different course. I believe the tumor is a fibroma. One year ago our patient noticed a lump the size of a marble in her left breast. This was associated with a throbbing pain which was chiefly present at night. The lump is now two-thirds the size of my fist, and the pain has increased some in severity. The woman is forty-two years of age, and is approaching the climacteric. Gentlemen, I am afraid of this tumor. Benign, or at least apparently benign, tumors of the breast are apt to become malignant at this patient's age. I make it a rule to remove them, for the

[1] Delivered at the Jefferson Hospital.

operation is not dangerous and I believe the tumor is. I shall remove it, therefore, and with it, since she is passed the age of lactation and is approaching the climacteric, I shall remove the entire breast. Having resolved to do this, there now comes a question about the axillary glands. As far as I am able to ascertain at present, there are no enlarged glands there, but if the enlargement of these glands has not reached any marked degree, it is absolutely impossible before operation to say whether or not such enlargement exists. Hence, I shall first remove the breast and then cut it open to determine by the eye as far as I can whether the tumor be malignant or benign. I shall then make an incision into the armpit, into which I shall insert my finger and thus ascertain whether or not the glands are enlarged. As I have already said, it is easy to overlook them unless we examine beneath the skin. If I find any enlargement, I shall dissect the axilla and remove the fatty tissue and glands all the way up to the clavicle. The first step is to remove the breast, and I shall then be guided by the results of my examination.

You can now see that the nipple is not retracted in the least. When I seize the gland you will all notice the tumor. If the patient were a young girl, nineteen or twenty years of age, I would try the effect of time and of sorbefacients and if they failed in two or three years then I would remove only the tumor; but since she is forty-two years of age, I shall remove the whole breast. I make here an elliptical incision, including the nipple, which you should always do in removing a breast. I now dissect out the gland. I shall not remove the muscle here, as I did in the last case, for the breast is not adherent and the tumor is probably not malignant. Notice, by the way, that I have wrapped up her head in a bichloride towel. I always do this, as the hair is a fertile source of infection. You will observe that as I have handled the patient's clothing I again disinfect my hands. This should always be done after touching any portion of the body or clothing not disinfected. This leads me always to wrap the patient's arm in bichloride towels that they may be handled with safety and if in her struggles at any time she touches the wound it will not be infected. Grasping the skin with forceps and using this as a handle, I dissect up the skin, being careful to remove every portion of the breast. In the upper portion, where the tumor lies, I am particularly careful not to encroach upon the gland. I can now get behind the gland very readily with my thumb, and am right down upon the pectoral muscle. Here is the entire breast which I have peeled out very quickly, and here is the tumor. It is intensely hard, even harder than is scirrhus, as a rule. Cutting through a portion of the breast itself you can contrast its appearance with that of the tumor. I have no doubt of its fibrous character. I am now going to investigate the armpit. Now you see, by passing my finger under the pectoral muscles, with the bimanual examination I can reach all the way up to the clavicle, and I find that no glands are involved. I shall, therefore, not clear out the axillary fat and glands.

Now as to drainage. A large cut will heal in a great deal shorter time if we put in sufficient drainage. I shall enlarge this opening, then, to the bottom of my wound, so that there shall be no pocket here. All of the small vessels I catch with hemostatic forceps. Forcipressure answers the purpose well in the case of small vessels, but larger ones I always tie. Notice how dry the wound is. I have used no sponges whatever, but pieces of bichloride gauze in their place, packing them into the wound at point after point where I have completed the dissection. This is the "dry method" lately introduced by Landerer, and I have been using it for some time with great satisfaction. It excludes also all "flushing" of the wound with antiseptic solutions. Next I shall proceed to insert the stitches. You will observe that I always have two needles ready. This saves much time, for while I am applying one, Dr. Horwitz is arming the Abbe needle-holder with the next one. I shall put in a rubber drainage-tube, and a bundle of horse-hairs for drainage in addition. I always put in a few stitches at first, as they serve to hold the tube in position. For my suture-material I am using silk which has been first boiled and then placed in a carbolic acid solution and kept there permanently. For tying the arteries I used juniper catgut, which need not be removed, as it is dissolved in a few days. When I am able to bring the skin together so completely as in this case, I expect my patient to be perfectly well in one week's time. I shall put on an abundant dressing to absorb the free oozing of the first twenty-four hours. Over this I lay a piece of "rubber dam," and over this I put some

antiseptic "globe" wool, which I prefer to cotton since it is elastic and never packs. I place firmly around the chest a flannel binder, and then, laying the arm across the chest I put on another binder to secure absolute rest. A suspender is put on to prevent slipping, and the dressing is complete. To-morrow I shall dress the wound again and remove the drainage-tube, leaving the horse-hair *in situ* for the escape of the slight later serous oozing. I shall dress it again on the fourth or fifth day, removing then the horse-hair and the alternate stitches. I expect to show the case to you one week from to-day with the wound entirely healed. [Note.—One week later the wound was well and the remaining sutures were then removed.]

The next case I bring before you is what I believe to be a cystic tumor underneath the jaw. The patient is a man, who tells us that the tumor has been here for a number of months. It presents itself just under the side of the jaw, is soft and elastic, and therefore, I believe, cystic. Still, it is very difficult to make a diagnosis as to the nature of a tumor appearing in the neck. Very often we find that we have been quite wrong in our conclusions. Whatever it is, however, it shall be removed. I shall make a small incision, and dissect it loose. It appears to be the size of a lady-apple. I must be careful of the arteries in this region. There is the facial just behind the tumor, and the lingual is near it, and it may run down to the superior thyroid. Still it really makes but very little difference, for the hemostatic forceps will stop any bleeding which may occur. In the way of mechanical contrivances, the hemostatic forceps is the most important advance made for many years. But I would give you one word of caution, and that is in buying your forceps see that they have good substantial handles which will not bend.

I make my incision where the jaw will cover it, and especially the beard.

I have now divided the platysma myoid muscle, and shall proceed very cautiously to avoid entering the cyst wall. I am in a little doubt here as to what I have to deal with. This is the submaxillary gland, and the tumor is beneath it. The gland is not involved. I find now that there is a deep-seated cystic tumor underneath the gland. The gland itself is unaltered. The thin wall of the tumor has ruptured and its contents are sebaceous in nature, though so soft as to render the tumor practically cystic. I must now be careful to remove the whole of the sac. If this were not done we would quickly have a reproduction of the tumor. Here I have the entire cyst removed, but in doing so I have come down even to the hyoid bone and the base of the tongue. Catching now all bleeding points, I replace the submaxillary gland, put in my drainage-tube and horse-hair and proceed to insert my stitches as in the last case.

You will naturally ask how a sebaceous tumor which arises in the sebaceous glands of the skin can lie so deeply. Though only noticed of late, this tumor is undoubtedly congenital. In the fetal development of this patient an invagination of a minute portion of the skin has occurred and hence the cyst. These invaginations arise occasionally in the neck, at the angle of the jaw, near the orbits, etc., and give rise to sebaceous cysts like this and more rarely to dermoid cysts, which again are an evidence of their cutaneous origin. [Note.—The patient was out of bed the next day and discharged well in a week, the redressing having been similar to that of the last case.]

UMBILICAL HERNIA.—TEAR OF PERINEUM—RESTORATION OF ALL PARTS EXCEPT THE SPHINCTER ANI MUSCLE.[1]

BY BARTON COOKE HIRST, M. D.,

ASSOCIATE PROFESSOR OF OBSTETRICS, UNIVERSITY OF PA.; VISITING OBSTETRICIAN TO THE PHILADELPHIA HOSPITAL, ETC.

Gentlemen: The first case I have to show you is one which is frequently encountered in practice, namely, a minor grade of umbilical hernia in the new-born infant. This condition is observed in about two per cent. of all infants. It must be distinguished from the graver cases where there is an absolute lack of integument, and the abdominal contents are only covered by a thin layer of the amnion. The minor form is very amenable to treatment, disappearing in from six to eight months. The treatment consists in applying a perfectly even and firm pressure to the protruding umbilicus, and continuing this until the opening is closed. Pressure is best exerted by some

[1] Delivered at the Philadelphia Hospital.

flat, hard substance of an unirritating nature, which does not protrude into the opening. This will return the hernia and keep it in place, while not preventing closure of the opening. It is a common custom to use a conical piece of cork or other hard substance for this purpose, which, while it reduces the hernia and retains it in position, does not permit the closure of the opening in the abdominal wall. This is an illogical and unsuccessful plan of treatment. The edges of the substance employed should reach beyond the margin of the opening. A hard rubber button, about one inch in diameter, having a plane surface on one side and a slightly convex surface on the other side, is the best support. For this contrivance we are indebted to my friend, Dr. Walter Chrystie. Another means which answers just as well is the ordinary poker-chip held between two layers of adhesive plaster, and firmly applied over the umbilicus. There is one important precaution to observe. As the pressure must be applied so long, it is important to use some adhesive substance which will not irritate. The ordinary adhesive plaster of the surgeons is the best for this purpose, and can remain on the skin for months without producing any irritation. If the child is bathed daily, in two or three weeks or a month when the plaster is removed, the skin will be found healthy. The rubber or porous plasters will not answer, as they irritate the skin and produce a soreness which requires an intermission in the treatment, and consequently retards the cure of the case. The plaster should be made long enough to go two-thirds of the way round the child's abdomen. This can be reduced as the case improves until all that is needed will be a small strip across the umbilicus.

Complete Perineal Tear, with Restoration of all the parts, except the Sphincter Ani Muscle.

The next case I show you is a very interesting one. This woman came here two or three days ago requesting us to sew up her perineum. This surprised us, as it is unusual for such a request to be made. On examining the woman superficially I discovered nothing whatever out of the way, and consequently was at a loss to understand the woman's anxiety to be operated upon. On questioning her further, however, I found that she had had only partial control over the action of her bowels since a confinement some years ago; that one year ago she had been operated upon for hemorrhoids, and that since then there had been absolute incontinence of feces. I examined her again, and found that at one of her labors she had been torn into the rectum. The tear had been operated upon, but the sphincter muscle of the anus had not been included in the sutures and it was now lying across the posterior surface of the anus as an almost perfectly straight band. All of the structures between the posterior commissure of the vulva and the anus had been torn through, but all had united except this muscle. The hemorrhoids had doubtless acted as an anal plug and had, to some extent, masked the absence of a sphincter.

This condition is one which can be easily repaired, and this morning I shall do this before you. I shall cut, with a pair of scissors, through the tissues between the vagina and rectum, and then shall sew them up as should have been done at first. I shall first cut perpendicularly through the recto-vaginal septum; then I shall turn the knife perpendicularly to this incision and cut outwards towards the tuberosity of the ischium. Then, in order to bring together the deepest portions of the wound, I shall insert two or three tiers of catgut stitches, leaving two tiers buried out of sight. In this way I shall secure apposition throughout the whole extent. This is a modification of Tait's operation. Without this precaution of securing complete apposition, the majority of these Tait operations are unsuccessful. I shall take the additional precaution here to reinforce the catgut sutures with a silk-worm gut stitch inserted through the whole depth of the wound, as I am afraid to trust alone to the gut. By passing the unabsorbable silk-worm stitch, and shotting it, I reinforce the action of the other stitches and prevent any danger of the tissues coming apart from the too early absorption of the continuous catgut sutures.

The woman has had a vaginal douche of bichloride solution, and I shall also bathe my hands in the bichloride wash. The light in such operation should be horizontal as well as perpendicular in order to secure the best results. The feel here is very curious and characteristic. Here lies the sphincter muscle, sprung out so that it has lost its shape, across the posterior or under surface of the anus. There is a constant flow of feces, but the destruction of the sphincter prevents that sudden discharge of

feces which makes these operations so unpleasant at times. I will proceed now, in some degree, with the flap-splitting method of Tait, thus permitting me to secure the ends of the muscle. I now have these ends free and shall proceed to insert my sutures. In passing the stitches near to the rectum, one must be careful not to pass them through the mucous membrane, or else he might have recto-vaginal fistulæ following the tracks of the sutures. An important precaution to be observed in using catgut sutures is not to put them into water before using, as this makes them too absorbent and too rotten. In operations upon the anus, it is impossible to keep the instruments out of the feces, but, fortunately, this is not a malignantly infecting substance. You can often put the ends of the catgut sutures to good use by placing them in the lower border of the wound, as I am now doing, where they will act as drains. The wound I have made here is so small—though quite large enough to answer my purpose—that I will not insert many of the catgut sutures. In order to secure the ends of the muscle firmly I insert my stitches at this point very deeply. The angry appearance of the rectal mucous membrane which you see here is very characteristic, and is due to the eversion of the edges, the result of the laceration of the muscle, with irritation from the consequent exposure. I believe, now, that I have thoroughly drawn the edges of this muscle together, but to make sure, I insert now one more very deep suture, running my needle down so as to firmly embrace the ends of the muscle.

The after-treatment of these cases is troublesome, as I must keep the bowels bound with opium for several days, and this, of course, acts unfavorably upon the woman's general condition. However, if they were allowed to be opened, the newly-united muscle would be torn apart. I shall now put my reinforcing stitch directly through the ends of the muscle. As you see, I have so diminished the calibre of the anal orifice that I cannot introduce my forefinger into it. The relief afforded such persons by this operation is really wonderful. Some time ago I operated on a woman in Trenton who for over eight years did not dare to enter a public conveyance for fear of involuntarily evacuating her bowels. Her husband's affections had become estranged, and from mental anxiety and lack of exercise her general health was wretched. The operation was a success and to-day she is a changed woman. The recto-vulvar septum only, here, as you see, has been involved in this operation, as I did not enter the vagina at all. I shall now give her an opium suppository to confine her bowels and relieve the pain she will have from the constrained lithotomy position in which she has been held.

COMMUNICATIONS.

PNEUMONIA: WHAT IS IT?

(FIRST PAPER.)

BY HIRAM CORSON, M. D.,

CONSHOHOCKEN, PA.

In the *Journal of the American Medical Association* Dr. Edward F. Wells has, in eight numbers, issued between February and October of the year 1889, occupied seventy columns with a history of pneumonia, under the name of "Pneumonic Fever." He gives the names of about fifty eminent persons who, during the last five centuries, have written elaborately on the subject; and in about a thousand marginal notes refers his readers to the various papers written in relation to the disease; and even more than all this, ofttimes a single marginal reference embraces five, ten, or even a hundred papers by different persons on the special subject that he is considering. Dr. Wells takes his readers back 440 years, through the 15th, 16th, 17th, 18th centuries, and to the year 1888 in the 19th century. It is a wonderful record, and were it in pamphlet form, would be invaluable for reference to all that has been written on the subject of pneumonia. In this country we occasionally hear of this disease being epidemic, though there be only a few cases in a small town. Dr. Wells takes no notice of such cases, but gives to his readers the epidemics reported by all writers since the year 1440. Every country in the world has suffered from these epidemics; some of them frightfully. The epidemics, too, were widely different in the symptoms presented and in the lesions found after death. It is due to Dr. Wells to say that, in referring to some of these malignant epidemics, he writes: "Accounts of such outbreaks come to us from very remote times, although there must always remain a doubt whether the great epidemics of which we read were really pneumonic in their nature." I cannot give even a synopsis of this

remarkable paper, which gives all the various names which have been applied to the affection, its character, prevalence and fatality, and the theories concerning its nature for more than four centuries.

The author, in an apparently candid and impartial manner, has treated of the *change of type* said by those who denounce blood-letting to have taken place within the last forty years, and which change they regard as showing that the disease is less sthenic in character, and therefore no longer admits of the use of the lancet. He does not believe in such change. He sums up thus: "From these facts I am of the opinion that there has been no actual change in the type of this disease, and that the pneumonic fever of to-day is that of our fathers and of past ages, and will be that of future generations." After a careful study of all that has been written on the malady in relation to the mooted question of its local or its constitutional origin, he says: "In my opinion pneumonic fever (by which he means our pneumonia) is a general disease with a local manifestation in the lungs." He follows this by some reasons for the conclusion. He also says quite fearlessly—knowing that he is on the popular side—"there can be no doubt as to pneumonic fever—epidemic as well as sporadic—everywhere and always being due to the action of a single, peculiar and specific morbific material, which, in the case of epidemics, is fed up to a point of intense virulency and may act upon a population less able to withstand its onslaughts."

Now, although he has given this as his opinion, he has been fair enough to give us the opinions of others of great experience with the disease, who differ with him. He says: "During the first three decades of the present century—until 1830—Paris was the medical centre of the world, and the views of Laënnec, Andral and Chomel—the great triumvirate of the French school—are worthy of particular attention, because they were probably those of the great mass of physicians of that day." I will give their conclusions briefly: "Laënnec considered it a pure local inflammation." "Andral is not so clear in his statements . . . is inclined to think it, in *most* cases, a local inflammation." "Chomel evidently considers it a local inflammation." "Copland defines it as an inflammation and its consequences in the parynchema of the lungs, often complicating the small bronchi and air cells on the one hand, or the pleura on the other more particularly or exclusively." "Trosseau considers it a local affection; the local phenomena generally open the scene, and the general symptoms continue along with the local phenomena." "Davis"—he refers, I suppose, to Dr. N. S. Davis, of Chicago—"is perhaps the only author of wide reputation who yet holds pneumonic fever to be a local inflammation and can perceive no evidence of specific poison." Not a bad array of persons who believe in the local origin; combined they should have almost as much weight as Dr. Wells. I hope we need not depend exclusively on the opinions of Frenchmen, Germans and Italians. Dr. Wells is probably too young to have had personal knowledge of the eminent author and successful practitioner, Professor George B. Wood, of Dr. Physick, the renowned surgeon, of Hartshorne, the elder Parrish, Chapman, Samuel George Morton, Alfred Stillé, H. H. Smith, the younger Henry Hartshorne, the Hodges, Meigs, and others, of Philadelphia, all distinguished authors and practitioners whom we know and who regarded blood-letting in pneumonia as the essential remedy in its treatment and that of acute inflammations generally. I have not forgotten Prof. Samuel D. Gross, but defer calling him up now. Of those named, who are still living and who have practiced during many years, not one but will—even in "the maddening maze" of things by which the practice of medicine is now surrounded—testify to the wonderful relief which they have often seen come to patients by the abstraction of blood, when they were ill with pneumonia. But what is such testimony worth to those who have never seen blood drawn from patients whose lungs were congested and who were threatened with suffocation? And still more, too, those who have had teachers—as ignorant of it as themselves—drumming into their ears day after day, for two or three winters, warnings against the "murderous blood-lettings;" and who have read in Dr. Wells's paper that "Davis is the only author of wide reputation who holds pneumonia to be a local disease, and is favorable to venesection"?

Who, then, let us inquire, is the man called "Davis" by Dr. Wells, who has not abandoned blood-letting in pneumonia to embrace the new views? Fifty years ago he was a country doctor, practicing his profession in the State of New York, and vividly do I remember how my heart warmed to him, when forty-five years ago he awak-

ened the profession of the whole country to the importance of having county, State and national medical societies. Nor less vividly do I remember that there were those, in our great medical centres, who were disposed to sneer at his idea of gathering the members of our profession into one harmonious body; because his name was unknown to fame, and Binghamton was but a country village. It seemed to them more fitting that it should have originated with the eminent men in one of the great cities. But N. S. Davis was not the man to be disheartened, and he therefore bent himself to the great work before him with a zeal and nobleness of purpose which brought to his side the thinkers of the profession, and everywhere county and State societies sprang up as if by magic, and in 1847 his labors were crowned by a meeting of delegates from State societies, and the American Medical Association—the work of Dr. N. S. Davis—was given to the world. What it has done for our profession let its "Transactions" during forty years testify.

This, then, is the man Davis—the Father of the American Medical Association; who, "after practicing ten years in the State of New York, where the winters were cold, and during which time pneumonia, pleurisy, bronchitis and rheumatism were frequent, and uniformly of the sthenic type, bled freely, and sometimes twice, and gave, internally, sedative doses of tartar emetic, with alterative and anodyne doses of calomel and Dover's powder; and the relief to the patient was *always* well marked, and sometimes so decisive as to render the amount of exudation in the second stage unimportant, and to enable the patients to be up and dressed, with all the indications of complete convalescence, on the fourth or fifth day." But this man Davis, after an experience of ten years with the sthenic patients in a hilly, rugged region, free from malaria, and supplied with pure air and good water, near the northern line of Pennsylvania, saw the disease for two years while residing in New York City, and since then has encountered it in his practice for forty years in the city of Chicago, where, as the very head of the profession, he had ample opportunities to see pneumonia in sthenic as well as in asthenic cases, which so abounded in that then malarial city.

And here let me pause in this narrative to say that our brethren speak of those who resort to venesection, in cases of heavy congestions or acute inflammations of the lungs as though we depend upon and resort to blood-letting in all diseases and under all conditions of the system. For sixty-two years I have been a witness to the practice of those who resorted freely to the use of the lancet—and with a confidence inspired by numerous successes, and yet the great majority of these patients, ill with the current diseases, were treated without the abstraction of blood. But they did not stand by the bedside of patients threatened with suffocation, and depend on a few drops of some arterial sedative; but instantly gave them relief by unloading the lungs, and allowing the atmospheric air to enter the cells.

A faithful Laënnec, Chomel, Andral, Copland, Trousseau, and all the authors of the times for the past half a century in our own country who, after close observation of the disease which is now so dreaded and so destructive under the reformed treatment, regarded it as a local inflammatory disease of a vital organ, and successfully treated it by the lancet and the therapeutic measures then in vogue, are regarded by Dr. Wells as holding "doctrines and practices which reached their greatest ascendancy during the tyrannical reign of the lancet."

Dr. Davis still lives, with a clear, unclouded intellect; a giant in his profession, and can truthfully testify that the treatment of such cases as those which, during fifty years have been so successfully managed by blood-letting in his practice and in the practice of his contemporaries, is just as applicable and successful in the same kind of cases to-day.

Within the past year an eminent physician of Philadelphia told me that if he were suffering from pneumonia he would rather let it take an undisturbed course than to trust to the treatment of any physician in Philadelphia under fifty years of age. And yet these are the *lads* who talk so blatantly of the murderous blood-letting treatment of which they are utterly ignorant. There are hundreds of physicians still living, who, like Dr. Davis, have seen the prompt and efficient relief produced by the treatment practiced in that fearful era, so graphically described as the "tyrannical reign of the lancet," who can truthfully declare its value, and who have witnessed with sorrow the fatality of the present treatment, so lauded by men who never knew any other treatment. With the latter Dr. Wells no doubt belongs, and though utterly ignorant of the effect of blood-letting, he is bold to denounce it.

Ought we not to have as much confidence —aye! more confidence, in the testimony of hundreds of practitioners who pursued that treatment during half a century, and were witnesses to its success, than in those who have never witnessed its effects, but cry out that the disease has changed its type, has assumed a typhoid character which forbids blood-letting? Is it not impertinence in them to disregard the testimony of Drs. Davis, Traill Green, John and Washington Atlee, Samuel D. Gross, Samuel Jackson, of Northumberland, George B. Wood, Nathaniel Chapman, and scores of others of undoubted truth? Do these men lie? If not, why disbelieve them? Why call their treatment murderous? Are they ignorant of the theories or views of the disease which prevail now, and of the popular use of remedies so depressing—not to say poisonous to the system—that patients treated with them often die in three days, or even in a shorter time?

Our people are daily saddened by the sudden deaths of our most prominent men, all over the States, from pneumonia under the present too fatal treatment, and of which I may speak more in my next paper. The men of whom I have spoken as having confidence in the treatment now so universally denounced are all well known to every well informed physician, and yet their words are treated with contempt by the teachers of the present day. I may give respectful attention to *them* hereafter.

THE EXCESSIVE DEATH-RATE AMONG INFANTS AND HOW IT CAN BE REDUCED.

BY PETER McCAHEY, M. D.,
PHILADELPHIA.

During the years 1886, 1887 and 1888, there were 70,558 living children born in the city of Philadelphia. During the same period 19,137 children under the age of two years died within the city limits. There was no epidemic of small-pox, scarlet fever or diphtheria in these years, and the proportion of deaths to births may be considered fairly normal. In other words, more than one-quarter of the children born in the city of Philadelphia die before they are two years old. The ordinary rate of mortality during two years of adult life is 16 per thousand. The infantile mortality during the first two years of life is 270 per thousand, or 17 times that of adult life. It is doubtful if the slaughter of the innocents, ordered by Herod, or the loss of the first-born in every Egyptian family which followed Pharaoh's refusal to let the Chosen People go, much exceeded this annual slaughter of infants which occurs without comment in every city and village in the United States. Yet the latter is less excusable than either of the former. For while the people of Bethlehem were powerless to resist the mandate of Herod, and the Egyptians were unable to soften Pharaoh's heart or to guard against the mysterious approach of the avenging angel, every family and every physician have it in their power to reduce this unnecessary and enormous death-rate among infants. It would be chimerical to think that it can be reduced to that occurring among adults, but any reduction—no matter how small—means not only a diminution of suffering to the individual and the family, but also a direct gain to the State. It has been estimated that every adult is worth $2,000 to the community in which he lives. Ten thousand lives cut short before maturity is reached is therefore a direct loss to the State of two million dollars. It is impossible in one brief article to point out all of the causes of the excessive infantile death-rate. Many of them may never be ascertained. All of us have seen infants which seemed to be born but to die. There are many causes, however, which can readily be pointed out, and which are responsible for an enormous number of infantile deaths. Some of them begin at the moment the child is born, others do not become operative until weeks or months afterwards. They may all be summed up under the general terms of bad management and improper and insufficient feeding. How often it is the case that, as soon as the child is born, the cord is hastily cut and tied, and the child is handed to the nurse, who in a cold and fireless room leisurely proceeds to wash it in tepid water, from ten to fifteen minutes being consumed in this proceeding, at the end of which time the unfortunate chlid is shivering from the cold, and is chilled through. It is then still more leisurely dressed, put in bed, and an hour or more elapses before it becomes warm. The next day and the day following and every day thereafter, regardless of the season of the year, or the temperature of the day, the baby is stripped and again bathed from head to foot, and chilled again. When

it is three or four weeks old it is taken out to be shown to its admiring friends, regardless of wind or weather, the only thing that can keep its mother and it in, being a pouring rain, or a heavy snow storm. Is it any wonder that hundreds of babies die every year from croup, pneumonia, congestion of the lungs and other pulmonary affections, after being subjected to an ordeal like this?

As the baby grows older its diet is varied. It is allowed to help itself at the table, and as a result its stomach is thrown out of order, or it may be that it is attacked by an ephemeral fever or malarial fever. Now in the case of an adult whose stomach revolts at an undigestible article of food or who is seized with fever, it is well understood that he will not eat much for a few days. No alarm is felt because he abstains from food, and with a little medication he speedily recovers. In the case of a sick infant, however, neither the stomach nor the system is given any chance to relieve itself. Every two or three hours the little patient is forced to nurse, and if in a few minutes, vomiting occurs the warning is not heeded. The weak and irritated stomach is loaded up again with food which in a brief space is certain to be again rejected, until the child is thrown into a nervous state of excitation that is certain to protract the disease, and to render a cure far more difficult.

In another class of cases the child is irritable and peevish, cries all the day long, and has little or no desire for food. All sorts of diseases are suspected and the child is treated with various home remedies, when in fact the real trouble is that the mother's milk is not rich enough in quality to properly nourish the child, although it may be apparently plentiful in quantity. In still other cases the mother's milk does not seem to agree with the child, and an infinite variety of patent foods are resorted to in the hope of obtaining relief, when, in fact, the child is suffering from an attack of latent malaria, and, consequently, has no particular desire for any kind of food. The attack disappears about the time the latest novelty is being experimented with, and it obtains the credit which is justly due to time and the good constitution of the child. Many other causes might be enumerated, but, as said before, they can all be comprised under the head of bad management and improper feeding. And they can all be avoided by inaugurating a more sensible procedure in the management of infants from the moment of birth until they are two or three years old.

The infant should not be hurried into the world by the use of forceps, but the mother should be assisted to deliver the child naturally and easily by her own efforts. When the child is born the cord should not be cut until after respiration is fully established. The child may then be wrapped up in a warm cloth, placed under a blanket and allowed to remain undisturbed for twenty minutes or half an hour, until the mother has been made comfortable. Its face may then be cleansed with tepid water, but no other part of the body should be washed. Instead, it should be thoroughly rubbed with oil or lard from head to foot, and then be quickly and simply clothed and placed in bed. It should not be stripped again for five or six days, at which time the cord will have dropped off. An exception to this rule of non-disturbance is to be made in case of evident hemorrhage from the cord, or of violent or prolonged crying, in which event all the clothes must be removed and search made for the trouble.

Old nurses will insist on washing the baby from head to foot every day; but nothing could be more injurious. A daily bath in summer time is refreshing and beneficial, but during cold weather a bath once a month is ample for any child. Very few adults, and no old people, are in the habit of taking a daily bath in the winter season. Old people could not stand it, and it ought not to be expected that less care in this respect is requisite to keep alive a delicate infant than a vigorous old man.

The subject of feeding requires immediate consideration. Comparatively few women have any milk until the infant is three days old, and as that is too long for the newborn babe to go without food, it should be given in the meantime a liberal allowance of half cow's milk and half water, with a little sugar, every four hours. Even after the flow of milk is established, if the mother is thin and pale and has not sufficient milk, or states that the baby wants to nurse all the time, or empties the breasts whenever it nurses, it should be given three or more full meals of cow's milk every day, in addition to what it may receive from the mother.

During the first two or three weeks the cow's milk may be diluted with an equal quantity of water, after that time it may be be given to the baby in its original purity. There need be no fear of the two forms of

nourishment disagreeing with the infant, if its digestion is good, and even if a slight intestinal warfare were to ensue, it can be quickly subdued by medication.

If the mother is sickly, or unusually weak, no attempt should be made by her to nurse the child, but cow's milk immediately substituted. Any other course is positively injurious to both the mother and the child, sapping the strength of the one and furnishing insufficient and improper nourishment to the other.

An infant should not be taken out of the house until it is at least two weeks old, and not even then if the weather is cold or damp or the wind high. More care should be exercised in this respect with the infants than with the very aged. Old people know how dangerous exposure to a low temperature or a high wind is, and they consequently remain in-doors for weeks and months during the winter season, but the poor unfortunate baby is ordered out every clear crisp day, under the belief that it will be hardened by exposure. Any one whose business or pleasure causes him to traverse Franklin Square during the summer cannot fail to notice the groups of old men, retired merchants and others, who gather there to exchange reminiscences. On the other side of the walk, or a short distance away, he will also observe a number of mothers and nurses, with infants in their arms and in carriages. The cool fresh air of the square imparts new life to both groups, the aged and the very young, keeping the one out of the grave, and helping the other out of the cradle. Six months afterwards a pedestrian going through the square on a bright, clear, cold day, the thermometer marking thirty-five or forty degrees, will see the same group of nurse-maids and their infantile charges; but the old men are not there. They are sitting snugly by their fire-sides, and will remain there until the warm days of spring return. What wonder is it that two hundred and seventy out of every thousand children under two years old die every year, when they are subjected to such risks as these.

Keep the child warm, give it sufficient nourishment, guard it against exposure to cold and winds, and the death-rate will drop from two hundred and seventy per thousand to less than a hundred.

The therapeutics of infantile diseases is beyond the scope of this article; but it cannot be too frequently stated that many deaths would be avoided, if medical advice were obtained in time. That it is not sought for as early as it should be, is due to the wide-spread belief that sick children cannot stand much medicine. Or, in other words, many parents believe that the diseases of childhood are either very fatal or very trivial, and that medicines are consequently useless in the former and dangerous or unnecessary in the latter. No error could be fraught with more evil than this. Children are subject, with but few exceptions, to the same diseases as adults, arising from the same causes, requiring the same remedies, though of course in different doses, and in dangerous cases requiring the same heroic measures which alone can bring an adult safely through the crisis of a serious malady.

304 North 18th St.

A CASE OF TRIPLETS.

BY E. D. CHASE, M. D.,
GALVESTON, TEXAS.

I am led to report this case, not that the labor was remarkable for length, severity, complications, or other point of obstetric interest excepting the number of children; not that it required any great amount of skill or tact to consummate it; but, partly from its rarity, occurring as it does but once in about six thousand labors; partly from the fact that it is the first case of the kind I can find recorded for this city; and partly to put it on record, as statistics for those who love them, and as an item of curiosity for all.

I was summoned November 1, 1889, at 3 A. M., to see Mrs. J. W. H., white, aged 30, who had been suffering more or less for five or six days, and with labor-pains since midnight. This was her sixth confinement, the previous ones all single. There was no record of plural births in any of *her* family, but the husband's sister had once given birth to twins.

I found a roomy pelvis, vagina well lubricated, external os fully dilated, and through the bulging bag of membranes I could make out the head in the left occipito-posterior position. The pains were regular and seemed strong enough, but the progress of the labor was not as satisfactory as the circumstances seemed to demand. So at the next pain I sawed across the tense, bulging membrane with my finger-nail, when it

ruptured and about a pint of fluid came gushing out. A second pain almost immediately followed, bringing the child—a girl—at 4 A. M. While engaged tying the cord, the mother informed me that something was wrong yet. A hasty examination revealed another bag of membranes at the os, and a little later I could make out a footling. As there was no longer any use for the bag of membranes, and as the pains were strong, it was also ruptured. With another gush of waters, and after three or four pains a boy was born at 4.25 o'clock.

Now was a good time to stop; so I was totally unprepared for the cheering announcement, "All isn't right yet, doctor." This time I found a head in the right occipito-anterior position. The pains seemed now to have ceased, and the woman declared she would die, as she "hadn't misery enough to bring it." A five-grain quinine bi-sulphate pill and a small toddy, with, after some little time, judicious manipulation of the uterus, brought on the pains again. This time they were more severe, and lasted longer, but seemed ineffectual. She wanted to give it up two or three times, but a little assurance that all was right, and slight compression over the uterus brought away the third child—a boy—together with the placentæ and membrane at 6 A. M. The child was enveloped in the placenta and membranes, making comparatively a large body; and this doubtless the cause of the longer, harder delivery. The mother was only a little tired, and talked and joked as lively as ever. In all her previous labors she sat up within an hour and nursed the child, and usually got up and did her work after the seventh day. After seeing her babies properly attended to, I left the mother in charge of the nurse, intending to call again in the afternoon.

There was only about a quart of fluid expelled. Scarcely an ounce of blood escaped. There was one single and one double placenta united by membrane. The girl was attached to the single placenta, the two boys to the double one. There was only one sac for the boys; therefore there was no bag to rupture or waters to attend the delivery of the third child.

Of the children one boy and one girl weighed two and three-quarter pounds each, and measured sixteen inches in length; the other boy weighed three pounds and measured seventeen inches in length. All were well formed, good-featured, apparently healthy children, and seemingly as well fitted for the race of life as larger babes.

The girl died of trismus nascentium on the ninth day, and one boy of meningitis on the thirteenth day. The other boy still lives, is growing nicely, is healthy and hearty and has had his "*grippe*" with the rest.

COMPLETE LACERATION OF THE VAGINA.

BY HERBERT A. STARKEY, M. D.,
PHILADELPHIA.

December 6, 1889, being in Vineland, N. J., I was asked by Coroner E. H. Bidwell, M.D., to examine the body of a colored woman discovered in an old stone building. We found the body in a mass of straw in a corner of the miserable hovel. On superficial examination we found the body still warm, evidences of vomiting and of severe hemorrhage from vagina, and the protrusion of a mass which, at first, was thought to be a string of membranes.

The body was removed to the Coroner's office, where we opened the abdomen, and discovered that it was filled with bloody serum. At Douglas's pouch a laceration in the vagina was found, large enough for the passage of a man's hand, and through it a portion of the omentum protruded. The peritoneum and adjacent tissues showed signs of acute inflammation.

Evidently the man (who was afterwards arrested by the Coroner) had, in a drunken and erotic passion, introduced his hand into the vagina, and forced it through the point of junction of the posterior wall with the uterus and into the abdominal cavity.

The prisoner confessed his crime to one witness, but told an entirely different story at the Coroner's inquest.

The woman had evidently lived for some hours after the assault.

Taylor, in his work on *Medical Jurisprudence*, speaks of a girl eight years old, who was raped by an adult, and who lived for six days after suffering a laceration of the vagina. But few of these cases are on record.

—The artificial carbolic acid lately introduced appears to be of such a stable character that it may be compressed into tablets for forming extemporaneous solutions.

SOCIETY REPORTS.

NEW YORK ACADEMY OF MEDICINE. SECTION ON ORTHOPEDIC SURGERY.

Stated Meeting, December 20, 1889.

A. B. JUDSON, M. D., Chairman.

DR. J. B. BRYANT read the paper of the evening, entitled, the

Functions of the Ligamentum Teres.

The paper was illustrated by a preparation including the femur, the os innominatum and one-half of the sacrum. The capsular ligament of the hip-joint was left entire, and the acetabulum was perforated by a trephine from the inner side of the os innominatum. A thread attached to the ligamentum teres and passing out of the opening was held in the hand of the observer, while the femur was made to describe the natural motions of the hip-joint. It was found that the ligament was relaxed in all positions excepting in outward rotation with flexion, and adduction with flexion. When these positions are taken, the ligament tightens, and it is thus demonstrated that the round ligament has no mechanical function excepting when the femur is flexed, and its use when this position is assumed, is to check adduction and outward rotation. It is most relaxed in adduction. But the ligament is so frail that it is almost of no use in the mechanism of the joint. While it is always ruptured in dislocation of the hip, its presence cannot be considered as a preventive of this accident, and it is so little liable to tension or injury even from extreme violence to the limb, that it can hardly be considered in the question of the etiology of hip disease. That it is the initial seat of hip disease belongs to the long list of unproven theories, assumptions that cannot be gainsaid. The principal function of the round ligament is to carry nutrient vessels to the femoral head; and yet when the epiphysis joins the diaphysis, the vessels return before reaching the head, and later they disappear entirely from the ligament.

DR. N. M. SHAFFER called attention to the fact that abduction, in which the ligament is most relaxed is the position in which the limb is found in the very early stages of hip-joint disease, when the first sign of the disease is an instinctive protection of the joint. Although the motion is limited in all directions, there is the greatest limitation where the strain on this ligament is the greatest. Later, when the functions of the ligament are practically abolished by the advance of the disease, the muscles assume control independently of the ligamentum teres. As this very vascular ligament nourishes the epiphysis, he believed it should be carefully studied in its relation to disease in early youth and in its early stages.

DR. V. P. GIBNEY suggested that abduction is seen in the very early stage because the patient when standing throws his weight on the sound limb, and instinctively puts the affected limb in the position of rest in which it is abducted and advanced. He thought Dr. Bryant's demonstration made it difficult to see how this ligament could play an important part in the history of hip disease.

DR. JUDSON agreed with the last speaker. He thought the profession had of late years turned away from the view that hip disease begins in the articular surfaces or the synovial membrane, and had pretty generally agreed that it begins in an osteitic focus deep in the cancellous tissue. It is therefore a backward step to turn again toward the ligamentum teres as a structure early involved.

DR. PUTNAM JACOBI said that it might be interesting to note that one view held is that with the termination of fetal life the ligamentum teres ceases to have any functions. There are many such structures in the body about which learning and research may be vainly expended in the effort to discover their function, because it is really outgrown. It is highly probable that this ligament can have but little to do with the mechanics of the joint. Since the investigations of Volkmann, it has been pretty well agreed that in children disease begins in the cancellous tissue; but that in adult life it sometimes occurs as a primary disease of the synovial membrane, especially under the influence of rheumatism.

It is also worthy of note that in children it is often possible to mark out very distinctly the point in the clinical history where hip disease ceases to be limited to the bone, and invades the joint. She had had an excellent illustration of this in a child who came to the dispensary with the history of having limped for several months, but who at that time had no pain and no malposition of the limb. The child was seen several times during the next few weeks, but

it was only after some time that the child returned complaining more of pain than of limp. Then the leg was found to be abducted and somewhat flexed, and passive abduction was excessively painful. From that time, the case followed the usual course of hip disease.

Dr. R. H. Sayre had found in the early stages of most cases of hip disease that the first movement to be markedly limited was that of internal rotation. Yet internal rotation as shown by Dr. Bryant's preparation, does not make traction on the ligamentum teres. Hip-joint disease may be either synovial or osteitic, although in the vast majority of cases it is primarily osteitic. In childhood, cases are occasionally found of disease of the knee and ankle particularly which are apparently synovial from the outset; and the same occurs, though rarely, in the hip.

Hospital Notes.

BUFFALO GENERAL HOSPITAL.

SERVICE OF DR. ROSWELL PARK.

Resection of Intestine.

This woman had a large ovarian tumor which was removed two years ago in Rochester. Three weeks after the operation an abscess developed in the abdominal wall and, for a number of months, fecal matter and gases have escaped through the opening, showing that there is an intestinal fistula besides the abscess cavity which may be entirely in the abdominal wall or partly beneath. The patient was etherized and placed on the table, the temperature of room being 89° F. The scar of the abdominal section extended from the umbilicus to a point four inches lower, where the fistula opened. Into it a probe was passed and then a soft rubber catheter, to the depth of three inches.

The abscess cavity was opened and found to be of the width of the hand, running from the middle line obliquely upward, backward and to the right for a distance of three inches. A pocket extended upward across the right rectus muscle and beneath its fascia. Through this pocket a steel sound was passed and a counter-opening was made upon it when it was discovered that the communication with the intestine was at this point. The abscess cavity was thoroughly curetted. The original median incision was enlarged so as to gain access to the strong adhesions which bound the intestine to the abdominal wall.

First a probe and then the finger was passed into the bowel. The thickened connective tissue was dissected through, parallel to the abdominal wall. Considerable hemorrhage was caused, and it became necessary to divide the rectus so that an underlying branch of the deep epigastric could be tied.

Below the opening into the bowel a marked constriction was felt which would explain the colicky pains of which the patient had complained. The difficulty and danger of separating the constricted portion of the bowel from the adhesions which bound it to the pubes were great and, on the other hand, it was questionable whether it would be safe to close the fistula and leave the constriction alone.

With considerable difficulty the adhesions were broken and Gussenbauer's clamps, protected with rubber tubing, were placed at the extremities of the thickened and constricted portion of the bowel. Two adjacent portions of the bowel were bound firmly together by adhesions so as to make a U-shaped tube. Even after separating the arms of the U, it was found that some eight inches of intestine which had been cut and torn loose from its parietal adhesions, was so thickened, constricted and doubled on itself that its removal was necessary.

The intestines were nearly empty; but what little mucous and fecal matter they contained was stripped out onto sponges, which were immediately thrown away. The mesentery was ligated in sections, close to the bowel, each ligature including about an inch and a-half of mesentery. The ligatures were of heavy catgut; each ligature was tied; the portion of intestine corresponding was cut loose from the pedicle, and when all the ligatures had been tied the intestine was resected between the clamps and the ends, and again carefully stripped of their contents as before.

The edge of the mesentery was puckered together by a fine silk suture and the ends of the intestines were joined by thirty-six Czerny-Lembert sutures. The external wound was closed with silver-wire sutures. No drainage from the peritoneum was used, but the former abscess cavity was packed with iodoform gauze and catgut drainage used. Death followed from shock after two days.

PERISCOPE.

Gangrene following Morphine Injections.

Dr. L. Bremer, of St. Louis, Mo., publishes in the *Journal of Nervous and Mental Diseases*, February, 1890, some remarks on emphysematous gangrene following hypodermic injections, in which he says:

One of the varieties of septicemia well known to, and dreaded by, the surgeons of former generations, but now almost banished from the surgical wards, is emphysematous gangrene, or, in modern parlance, malignant œdema. The general adaptation of the great principle of cleanliness, in even insignificant lesions and operative interference, has almost done away with this formidable foe to the wounded, and where it does appear it follows not, as a rule, in the wake of the surgeon's instruments. In our days, if at all, it is met with in open fractures and deep lacerated wounds which in some manner have come in contact with filthy material harboring a certain pathogenous germ.

It is at present a well-settled fact that this form of wound infection owes its origin to a well-characterized bacterium, the bacillus of malignant œdema.

The pathological changes produced by the microbe by means of hypodermic injections of fluid containing the germ, in animals, are diffuse œdema of the neighborhood of the inoculation, accompanied by emphysema. The latter is due to gas-formation in the tissues. The disease (in animals) clinically resembles anthrax, from which, however, it can be easily differentiated by the manner of death, by the form of the bacillus found, by its manner of spreading through the organism (the anthrax bacillus proliferating in the blood, the other in the tissues), and, last, by its behavior in the cultivating media.

The bacillus is a slender rod, growing at times into false threads, resembling very much the anthrax bacillus, from which it differs by the rounded ends, the latter having both of its extremities slightly excavated. It is met with in the superficial strata of manured ground, in putrefying cadavers, in old rags, in dish-water, etc. It forms spores, and it is generally in this state that the bacillus occurs in the substances named and is introduced into the living body.

The artificial production of malignant œdema in man has been observed before. Thus Brieger and Ehrlich have described it in two cases of typhoid fever following the subcutaneous injection of tincture of musk, which probably contained the organisms. The patients died. Dr. Bremer himself, in 1888, reported a fatal case of malignant œdema in a woman who had been in the habit of producing abortions on herself and had probably employed an unclean instrument in the last operation for that purpose.

Dr. Bremer describes two recently observed cases following the use of the hypodermic needle in morphinists, and calls attention to the fact that the morphine injector is so careless as to the condition of his syringe that he will continue its use, although every injection is sure to be followed by an abscess. In such cases the syringe is "infected" with pus-producing organisms.

In the two cases reported, and in others similar in kind, it seems that the pus-producers pave the way for the successful colonization of the bacillus of malignant œdema.

Death after Preventive Inoculation, by Pasteur.

A boy named Rankin, who was bitten by an animal supposed to be rabid some time ago, and who was subjected to a course of anti-rabic inoculations by Pasteur, in Paris, died at Coleraine, of hydrophobia, March 12, 1890.

Amputation of the Arm and Scapula.

A case in which the above operation was successfully performed is reported in the *Annals of Surgery*, Feb., 1890, by Dr. Edwin A. Lewis, of Brooklyn. The patient, a man 47 years old, was thrown from a carriage Nov., 1887, striking his left shoulder. He had not been able to use his arm well since the accident and the shoulder had been gradually enlarging. In April, 1889, the arm suddenly gave out and has been practically useless since. He was admitted to the Brooklyn Hospital, April 26, 1889. The patient's general health was good and an operation was requested. The shoulder was very much enlarged although not very tender to manipulation. A diagnosis of osteosarcoma was made, and the patient was operated upon April 29.

The subclavian artery was first tied in the

third part of its course. The scapula and outer half of the clavicle were removed with the upper extremity. Drainage was established at the lower angle of the scapula. All antiseptic precautions were taken. Patient suffered from severe shock but rallied well.

The amount of hemorrhage was not very considerable. The only artery tied was the subclavian. On the third day the drainage-tube was removed from the lowest part of the wound where the lower angle of the scapula had been. About two drachms of sanious aseptic fluid followed. This was the remains of the douching of the extensive exposed surface at the time of the operation and was not the product of any inflammatory process. Nearly the entire wound healed by first intention. The patient's temperature hardly went above normal.

Since the operation the patient has gained in general health and strength. On examination eight months after the operation, the line of incision shows the two small points that healed by granulation, one at the middle of the clavicle and the other at the lower angle of the incision.

There is a point of great tenderness near the lower angle of the incision. By gentle palpation the bulbous extremities of some of the brachial plexus of nerves can be felt. Dr. Lewis advised the patient to have these nerve trunks resected. There is not the slightest indication of any return of the disease at any point.

Ashhurst has tabulated 51 cases of this operation, which show a mortality of about 25 per cent. Dr. Stephen Rogers, of New York, in the January number of the *New York Medical Journal*, 1869, publishes a table of operations for partial or complete excision of the scapula. There are 64 cases. Of these, 15 included removal of the arm and part or all of the clavicle. The mortality in these cases was 20 per cent. Many other cases have been reported singly and, doubtless, many not reported at all. The operation seems to be sufficiently rare to warrant the reporting of every case, whatever the result, for the purpose of assisting in statistics. A most complete table has been published by Berger, of Paris, in a monograph on this subject. He reports 51 cases, the same number as Ashhurst, but analysis shows that he mentions only 25 of the same cases. Therefore, he reports 26 cases not mentioned by Ashhurst.

His conclusions, from a critical review of the history of each case, point to a death-rate rather less than mentioned by Ashhurst, *i.e.*, about 20 instead of 25 per cent. Berger suggests that the operation should be called amputation of the upper extremity next to the trunk, or the "interscapulo-thoracic amputation."

Pressure on the Perineum to Empty the Bladder.

In the *Virginia Medical Monthly*, February, 1890, Dr. Henry V. Gray, of Roanoke, Va., strongly recommends the practice of pressing upon the perineum to expel residual urine in the case of old men. When at stool, he says, in the usual attitude, that of squatting upon the feet, with the knees flexed, place the right hand under the right thigh—the palm of the hand rather in a diagonal line; press the palmar surface of the fingers firmly between the scrotum and anus, not too pointedly; make a reasonable inspiratory effort, which will force the perineum outward; and, by giving the proper support and resistance with your hand, one can readily and completely empty both bladder and rectum and thus prevent that bulging and sagging of the urethra and rectum which would otherwise follow the effort. This will not only accomplish in a satisfactory manner the special object of the occasion, but will break up the tendency to constipation, force back the blood into the general circulation, abridge the tendency to piles, abscesses, fissures, hypertrophy of the prostate gland, cystitis, and that horror of many old men, pruritus ani.

How a Well may be Polluted.

Dr. C. A. Probst says, in the *Sanitary Record*, January, 1890, that a short time ago he was requested by the attending physician to make an investigation of a farm-house where six cases of typhoid fever had occurred. The house was found situated on a steep side-hill overlooking a small river. The out-buildings were situated at some distance from the house, and on a lower level. The well was placed at the kitchen door, but was well protected from surface washing by curbing. It was seventy feet deep, drilled through the rock to the bed of the river. About ten feet from the well, and above it, was a cistern fifteen feet deep. Six children, ranging in age from five to twenty years, were found in various stages

of typhoid fever, and the origin of the disease seemed very obscure. On close questioning it was finally learned that the first child taken sick—a boy about six years old—had visited a relative at a village a few miles distant, and that he had played with some children at a house where there was a person sick with typhoid fever. About two weeks after he came home he was taken sick, but did not go to bed or call a physician until a week later. During that time he had some diarrhœa, to which little attention was given. The father confessed that even after the physician was called and left strict instructions to bury all stools of the patient at a distance from the house, he had not done so, thinking, as he said, that the doctor was a little too particular. The stools had been thrown on the ground, though not near the house.

It was learned that the cistern *leaked*, and that after heavy rains it rapidly filled, but remained full only a short time. It was suggested that the germs of the disease in the first case had gained access to the well water by being carried into the cistern and from the cistern into the well. The cistern and well were carefully examined a few days afterwards, by the owner and the attending physician, and it was made clear that the well was being fed by the cistern and that the cistern contained a large amount of filthy deposit.

This should teach us that when wells and cisterns are near together care must be taken to prevent pollution of the water in the cistern, as a leak, which may occur in the latter at any time, may carry dangerous material into the well.

Treatment in Emergencies.

At a meeting of the John T. Hodgens Medical Society, of Harrisonville, Mo., and reported in the *Kansas City Medical Record*, Feb., 1890, Dr. Wall read a paper on "The Treatment of Cases in Emergency."

Once, when sent for in haste to see a man who was thought to be dying from choking, seeing a black-snake whip lying by, he proceeded to use it for a probang, pushing the meat from the œsophagus into the stomach.

Another time he was called to see a child with the croup. He had no medicine with him, but mixed coal oil and sugar, and gave it in teaspoonful doses, and it cured the child.

Another case which he reported was that of a little child with a bean in its nose that he could not get at with any instrument he had. So he pressed on the unobstructed nostril until it was closed and then blew into the mouth until the bean was forced out.

Still another child had a tin top in the larynx and could not cough it out. Dr. Wall lifted the child by the heels and slapped it sharply between the shoulders and the top flew out.

Arrested Development of Generative Organs.

At the meeting of the Pathological Society of London, held Feb. 4, and reported in the *Lancet*, Feb. 8, 1890, Mr. Shattock showed a specimen of a female fetus, presenting arrested development of the generative organs. The rectum and anus were normal, the clitoris and its prepuce were unnaturally large, the former being grooved on its inferior aspect, and when traced backwards led to a small aperture in the perineum. This was the urethral opening, which above was surrounded by a full-sized and perfectly normal prostate. The bladder, uterus and ovaries were well formed. Below the uterus was a vagina, which passed through the posterior portion of the prostate and opened into the urethra, being narrowed at its lower end. The specimen was of interest because it threw a side light on a question relating to the hymen and to the vesicula prostatica of the male. It bore out Leuckart's view that the vesicula prostatica represented both the uterus and vagina, and it also demonstrated that the orifice of the hymen might be regarded as the narrowed aperture by which the vagina communicated with the urino-genital sinus. If this were the case, the analogue of the hymen should be found in the adult male at the spot where the prostatic vesicle opened into the urethra, and he showed specimens which demonstrated a considerable narrowing at this point. He submitted that the view which Mr. Bland Sutton brought forward last year at the College of Surgeons, that the hymen was the remains of the septum between the proctodeum and the vagina, was untenable, and he illustrated his contention by diagrams. In reply Mr. Sutton admitted that there was much to be said in favor of Mr. Shattock's view, and he had a specimen which completed the chain of evidence in this direction.

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INSOMNIA AND ITS TREATMENT.

With the ever-increasing mental and nervous strain upon American men and women, it is not surprising that we hear more and more of the widespread prevalence of insomnia, while the difficulties attending its treatment are proved by the constantly growing list of measures recommended for its relief. He is the wise physician who at once gives up the thought of any routine treatment of it, and devotes to it the most careful consideration of its etiology and theraphy. The pressing need for this has elicited contributions from many able writers; two of the most recent ones being that of Jastrowitz in the *Berliner klinische Wochenschrift*, July 3, 1889, and that of Krafft-Ebing in the *Wiener klinische Wochenschrift*, 1890. Unfortunately we are in many cases unable to determine the causes of sleeplessness, since we do not know as yet with certainty the cause of sleep. The mechanical theory would seem to be most probable, that sleep is produced by anemia of the brain; but this is by no means certain. Possibly the cerebral anemia is the result of sleep and not its cause. A dynamic theory, much less probable, has also been advanced, according to which sleep results from the resting of those parts of the brain which preside over consciousness and volition. There is also a chemical theory, proposed by Preyer, which seems to us somewhat strained; accounting for sleep by the production by the tired muscle of some toxic substances which act upon the brain. Probably the most frequent cause of obstinate insomnia is brain overwork and nerve overstrain, whether through work or worry. The anxious business man, the mother worn out by long-continued anxiety over a sick child, the student—frequently a preacher—reading late into the night—begins to notice on retiring that he is restless for fifteen minutes, half hour, or longer before sleep comes to him. It is nature's warning voice which he would do well to hear; for this condition is often but the precursor of a more serious insomnia, which is unfortunately not of necessity cured by the removal of the initial cause. Still more powerful than overwork is the exercise of the emotions, of whatever nature. While the mind should be at rest, it is instead entertaining multitudinous sensations of fear, hope, anger, revenge, and the like. The man expecting to receive on the morrow an appointment to some important position, or he about to be hanged, is not likely to sleep much during the night preceding. In fact, anything which has produced unusual excitement during the day, which is disturbing the mental quiet during the rest in bed—as noises in the street—or which in prospect fills the mind with thoughts and feelings, robs the nervous individual of sleep. And if these causes persist insomnia becomes habitual.

Closely allied to insomnia of this nature

is that depending on actual mental and nervous diseases; such as melancholia, mania, dementia, and any conditions of mental excitement attended by delirium or hallucinations. Insomnia often seems to be a premonitory symptom of insanity; though frequently the cause of it as well. Organic mental diseases involving disturbances of the cerebral circulation may cause insomnia, as may focal cerebral lesions. Sleeplessness is further observed in those who have experienced excessive bodily fatigue; who are "too tired to sleep." Febrile diseases also, as typhoid fever and pneumonia, are frequently attended by distressing insomnia, producing real nervous exhaustion of the patient; and physicians sometimes have a groundless fear of administering suitable remedies under these conditions. Various chronic diseases, as well as conditions of anemia and malnutrition, often predispose to anemia. There is a series of what might be called "toxic" insomnia. Prominent among these is the persistent sleeplessness seen in *mania a potu*, and the troublesome condition witnessed in those struggling against the opium habit. Coffee and tea are common causes of insomnia, and tobacco may produce the same effect, though there are individuals accustomed to its use in which the withdrawal of it produces sleeplessness.

Perhaps the insomnia resulting from uremia, and often an early symptom in Bright's disease, may be included here. In certain other conditions the inability to sleep is a purely secondary condition; as when pain, dyspnœa, cough, palpitation of the heart, vesical irritability, the polyuria and thirst of diabetes, etc., prevent sleep which would otherwise come. Finally a very frequent cause of obstinate chronic insomnia, if indeed it can itself be called the cause, is old age.

With this extended group of diverse etiological factors, it is evident that the selection of proper treatment becomes a matter of the greatest difficulty..

The hygienic measures to be employed in the treatment of insomnia depend largely upon circumstances. The acting cause must, of course, be removed if possible. Tea, coffee and tobacco must be abandoned. Working late at night must be stopped, as must the over-excitement of the emotions by theatre going, the reading of thrilling romances, the entertaining of company in the evening, etc. All sources of care and anxiety must be taken away; and this is usually one of the most difficult of the problems which the physician has to solve. In severe cases it may be necessary to remove the patient to entirely new scenes. This is especially true in cases due to the combination of excessive mental overwork and undue exercise of the emotions; these forming probably the most obstinate of all cases. It may be that for months or years the patient must be kept from all work and removed from his surroundings by travel. Confinement to the house, or perhaps to bed, with the Weir Mitchell cure, may be necessary at first. The removal of the emotional causes can only be accomplished by time, suitable mental diversion, and effort on the part of the patient to forget the death of relatives, disappointed hopes, business troubles and the like—naturally a difficult matter. Apart from the removal of the cause, hygienic, physical and dietetic measures are necessary to produce sleep. The application of water in various ways is often useful, warm baths lasting one-half to one hour taken before retiring; or, in other cases, though less frequently, cold sponging followed by brisk friction may be effectual. Another serviceable method, which, like these, is supposed to remove blood from the head and produce the desired anemia, is bodily exercise before retiring.

Benefit has been derived from the use of dumb-bells or of a health-lift in the case of those who must, of necessity, use their brains at night. This should not replace a proper amount of exercise during the day, which is an essential. A curious observation has been made that certain individuals

are unable to sleep when reclining, but drop asleep readily when sitting up. This again would seem to depend on cerebral anemia, and may serve us a useful turn in practice. Although a full meal taken late in the evening is liable to produce sleeplessness, it must be remembered that the sensation of an empty stomach may prevent sleep; and that insomnia may be sometimes overcome by ordering a glass of hot milk, with, perhaps, one or two crackers to be taken a half-hour before going to bed.

Another requisite in the treatment is that sleep shall be solicited. The patient should spend a quiet evening, go to bed in a cold and darkened room, exclude company, relax the muscles by proper position, and make a firm and persistent effort to go to sleep. Then arises the natural desire to toss and turn, to scratch some part of the body which itches, to change the position of some member which is not altogether comfortable. All such impulses should be resisted, and the eyes be kept closed and not a muscle moved. A considerable, or even great, effort is required to follow this injunction. Whether it is that the intense concentration of mind on the one purpose acts as does hypnotism, we do not know, but the result is that sleep will often come surprisingly soon. In other cases sleep may be obtained by listening to some uninteresting matter read out loud in a low, monotonous voice. It is further of the greatest importance that the feet be not cold, as this is a great interference with sleep. Massage is a decided help in many cases. Electricity may be employed, especially the galvanic current applied to the head. Finally hypnotism is often of the greatest use in obstinate cases. Constitutional conditions and diseases should receive proper treatment, and dyspnœa, cough, pain, palpitation, etc., be relieved by appropriate means. In the insomnia produced by excessive bodily or mental fatigue, Lauder Brunton has successfully given strychnine at night, in the effort to bring the nerve system up from the condition of over-fatigue to that of simple fatigue, and thus induce sleep.

Hypnotic drugs will, however, be occasionally or constantly needed in many cases. When called to a patient with very troublesome sleeplessness the first indication usually is to procure a night's quiet sleep at once, if possible, by the use of some powerful, safe hypnotic. In chronic cases, however, these drugs should be used as little as possible. The choice of the hypnotic is a matter of great importance.

First in the list, as far as the power of producing sleep is concerned, still stands opium and its preparations. It is, however, rather a narcotic than a hypnotic, and is not to be recommended in most cases. Although usually effectual in producing sleep the patient feels stupid upon the following day, and often suffers from headache, nausea and loss of appetite. In some persons it produces excitement instead of sleep. The imminent danger of the formation of the opium habit must always be borne in mind, and the drug given with the greatest caution in chronic cases of sleeplessness. In patients in whom insomnia is secondary to pain or cough the drug is invaluable. In dyspœna from heart disease, though perhaps objectionable on theoretic grounds, it has often stood us in good stead, and we do not hesitate to use it in suitable cases.

Chloral is perhaps still the most powerful hypnoptic, but it is one which is called for very rarely. Its hypnotic action is often preceded by delirium, and sometimes this is the only result. It is a powerful heart poison, sometimes fatal in a single and small dose. It has, moreover, a deleterious action on the nervous system when given continuously, and there exists, too, the danger of the formation of a "habit" with it. It may be reserved for severe insomnia in the psychoses; as there is no need to employ it in conditions in which other safer hypnotics answer equally well.

Chloralamid or chloralformamid, introduced by v. Mering, is the hypnotic now

attracting the greatest attention. It is a combination of chloral and formamid, and appears to depend on the former for its efficiency. The dose is from 30 to 45 grains. Sleep comes in one-half to three hours, and lasts two to nine hours. The reports concerning its value are still very conflicting. It is certainly a useful hypnotic, but though it is apparently less dangerous than chloral, its action on the heart and respiration is not yet positively determined, which warns us to use it with caution.

Paraldehyde may now be called an old stand-by. Unpleasant effects after its ingestion are rare, except a very disagreeable taste in the mouth and odor on the breath during the following day. Its action in doses of 1-2 drachms is prompt and certain and the sleep obtained is refreshing. It is a useful hypnotic in delirium tremens and the psychoses, and can be used safely in heart disease, as it is entirely without depressing action on the heart even when given for a long period. The size of the dose and the disagreeable taste are the chief disadvantages.

One of the most valuable of the hypnotics is amylene hydrate. We have used it largely and find it equally as reliable and safe as paraldehyde, while the dose is smaller (15 to 60 minims). We are in the habit of administering it in capsules, each holding 15 minims. A glass of water or milk should be taken afterwards to prevent the medicine disagreeing with the stomach. A still more rapid action is secured if the remedy be given in emulsion with liquorice, but the taste is unpleasant. It is valuable even in maniacal cases, and is entirely safe in heart disease. The only bad effects recorded have been a condition resembling alcoholism, and this has been seen but rarely, and only after overdose.

Sulphonal, now so commonly employed, is at times a good hypnotic, but, it is to be feared, an untrustworthy one. It is exceedingly slow in its action; sleep frequently not coming for several hours, and persisting sometimes most of the next day. Many and various very unpleasant, though not dangerous, secondary effects may be produced by it; and this has indeed so often happened that we greatly prefer the more reliable amylene hydrate.

Urethan is a hypnotic of too little power to be of much use. Hypnone needs much further trial, especially as regards its action upon the heart, before it can be generally recommended. Methylal, somnal and other hypnotics have been recommended, but cannot be further discussed here. There are certain other substances not strictly hypnotics, yet which are often most useful in procuring sleep. One of these is alcohol. A glass of wine, ale, or beer taken before retiring will sometimes prove very efficient in insomnia of a slight degree. In persons disposed to alcoholism it is best to avoid it. Bromide of potash will often prove valuable, particularly in cases of nervous excitement or in insomnia due to palpitation of the heart. Its continued administration is not to be recommended, as it is distinctly depressing to the general strength. Hyoscine given hypodermically has frequently proved one of the most reliable drugs in the insomnia of the psychoses. It has also been used with benefit in some cases of the opium habit. It is, however, not unattended with danger. Cannabis indica has sometimes given surprising results, and procured sleep in cases suffering from pain, and in which morphia had ceased to give any relief, and amylene and sulphonal had proved useless. The sleep was, however, preceded by a semi-delirium very disagreeable to the patient. We cannot but consider that it is a worthy drug, too much neglected, and often capable of rendering more efficient service in time of pressing need.

In general, then, in addition to hygienic measures, amylene hydrate or pareldehyde should be employed if drugs are necessary; or sulphonal, if trial show that the patient can take it without unpleasant effects. These may be used in insomnia of all diseases, or

in that of brain overwork or emotional disturbance. In severe delirious insomnia, amylene or paraldehyde may be tried, and if these fail, chloral, provided that no contra-indications exist. Bromide of potash would also be of value here; opium should be reserved for patients in whom insomnia is secondary to some such causes, such as pain or cough.

ELECTRICITY AS A REMEDIAL AGENT.

The position of electricity as a remedial agent is still by no means so well defined as might be desired, or, indeed, as might have been expected from the length of time during which it has been employed by honest and intelligent medical men. As long as its application was restricted to the patients of quacks and pretenders, little was to be hoped from it; but when men of conscience and education took it up, it was to be hoped that its field of usefulness would soon be fairly well understood. Unfortunately this hope has not been realized; and to-day the medical profession presents the spectacle of three attitudes on the question: that of those who know little and care less about it; that of those who strongly advocate the use of electricity in medicine; and that of those who are so strongly opposed to the claims of its warmest advocates as to seem opposed to the use of electricity itself.

Careful consideration of the assertions made by these two latter classes does not make it easy for one who wishes to form a judicial opinion to decide what is the real value of electricity in medicine. There is hardly a town of any size in which acrimonious discussions in regard to this subject have not taken place, and Philadelphia has furnished its full share of them. Here we have men who claim to have seen the most beneficial results follow the use of electricity in medicine and in surgery, and other men who meet such claims with point-blank denials of the assertions by which they are supported. In no field of practice is this difference of opinion more striking than in the field of gynecology, in which there are here men who claim that electricity will dissipate fibroid tumors of the womb, and others who refuse to believe that what were dissipated were fibroids at all.

This state of affairs is in the highest degree unsatisfactory; and it is hard to see how the profession can find its way to deciding what those shall believe who must come to some decision before they can use, or absolutely refuse to use, an agent which may be a great boon or a great deception.

In the absence of the means of deciding finally, however, there is something which may be said without prejudice to the case, namely, that nothing would justify the sweeping condemnation of electricity which is sometimes indulged in but the assumption that all the men who claim that they get good results from it are either ignorant or unscrupulous; and this is an assumption which the facts do not warrant. On the contrary there are men in this country and in Europe of unquestionable intelligence and integrity, who have used electricity with results entirely satisfactory to their minds and who claim for it a less contemptuous consideration than it often receives. One of them—Dr. Andrew Graydon, of this city—at a meeting of the Philadelphia County Medical Society recently said:

"Prejudice should never be allowed to stand in the way of progress. No student should be hindered in his research after positive forces by the existence of a bias in the opinions of his fellows. The rules that bind the physician to his work should not be arbitrary. Are there no roads to success but those laid out by other faithful workers? Certainly our medical training and experience have taught us that different ones are achieving success, but not by the same methods. In the face of prejudice in the ranks of my profession I have followed the leadings of my inquiries, and what I have found is only that which any student and worker may. In these days when the spirit

of progress is rife, and medicine is getting to be more and more scientific; when its followers are not satisfied with mere statements but demand proof, I protest against this prejudice, which hinders many from leaving the iron-bound environments laid down in the spirit of the past. I do not make any extravagant claims for this agent. There is much we do not attempt to do with it; on the other hand, it can be proven to the fair and honest mind that there is a great deal it *will* accomplish."

Such expressions mark the sort of men from whom our best information in regard to disputed points in therapeutics must come. We need the experience and the opinions of men who do not make a hobby, or a display, of treatment by any given method, but who are willing carefully, patiently and conscientiously to try whatever seems likely to do good to the sick and suffering, and who faithfully report their results for the instruction of their fellows.

It is to be hoped that the uses of electricity will be studied in the spirit just described by those who have the best opportunities to do so, and that before long the members of the medical profession will emerge from the intensely controversial stage in regard to it in which they appear to be now, so that its true status may be clearly defined and its merits or demerits may be incontrovertibly demonstrated.

SANITARY WORK FOR SPRING.

The *State Board of Health Bulletin*, of Tennessee, in its issue for February 20, 1890, calls attention to the fact that the best months out of the twelve for scavengering and cleaning up work in cities are March and April.

Every one understands, it says, that during the hot summer months the upturning of polluted soil should by all means be avoided. Some of the best authorities on epidemics have traced very serious outbreaks to this cause; not only in hot climates, but in far northern localities where the summers, though brief, are torrid in temperature. Everybody in our part of the world understands that the emptying of foul pits and cess-pools, etc., should receive extra care in the hot weather of July, August and September. In many places that kind of work must go on at all seasons, but in the months just mentioned extreme care in respect to disinfection should be exercised so as to prevent the diffusion of noxious gases.

An excellent time for cleaning up is the latter part of autumn and the first of winter, when heavy frosts have fallen and the days are long enough for the accomplishment of good work. Thus good preparation is made for the winter, in which sanitary work is generally overlooked because of the increased expense and trouble.

During winter, premises become more or less foul, and March and April are months in which there is special need for effective sanitary work.

The *Bulletin* further calls the attention of the inhabitants of Tennessee to the very important fact that, although sanitation by official action is of vital importance to the health of a community, individual action by each housekeeper is not less so. Every back yard should be thoroughly scavengered, every cellar well cleaned and ventilated, every privy emptied and disinfected; and where water-closets are used, the connections should be examined and cared for.

These details have been urged upon the people of Tennessee again and again by the State Board of Health, but are just as much needed now as ever. The same could probably be said of every State in which there is a Board of Health; but still the warning should be repeated with unwearying patience until it is heeded by those to whom it is addressed. The progress of sanitation in cities and towns is slow, it is true; but we believe there is real progress and that an important part in the work is borne by just such faithful monitors as they have in Tennessee.

AMERICAN MEDICAL ASSOCIATION.

The next meeting of the American Medical Association will be held at Nashville, Tennessee, May 20–23, and the local committee is making every effort to secure the best accommodations for the Association, and all its members who shall attend the meeting. The various chairmen and secretaries of sections are also actively engaged in efforts to make the scientific features of the meeting interesting and instructive, and to have the results equal the admirable standard reached at the last meeting, at Newport, R. I.

It is to be hoped that these efforts will be fully supported by the members of the medical profession throughout the country, and that the Nashville meeting may be a first-rate one in every way. The hospitality of the City and State where the meeting is to be held are so well known that those who go there will be sure of a hearty welcome and abundant entertainment.

BOOK REVIEWS.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the REPORTER.]

A HAND-BOOK OF FLORIDA. By CHARLES LEDYARD NORTON. Part I. The Atlantic Coast. Small 8vo, paper, pp. xxxii, 240, with 49 maps and plans. New York: Longmans, Green & Co., 1890. Price, 50 cents.

This is one of the best hand-books of Florida which we have ever seen; and some familiarity with that interesting and healthful place of resort justifies the statement that all intending visitors to Florida would do well to consult its pages. The book gives valuable information in regard to the geography and history of Florida, and is illustrated with clear and accurate maps. It would be a little more convenient as a book of reference if it were indexed at the end of the volume.

CHEMISTRY: GENERAL, MEDICAL AND PHARMACEUTICAL, INCLUDING THE CHEMISTRY OF THE U. S. PHARMACOPŒIA. By JOHN ATFIELD, F. R. S., Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain, etc. Twelfth Edition. 8vo, pp. xvi, 770. Philadelphia: Lea Brothers & Co., 1889. Price, cloth, $2.75; sheep, $3.25.

There are some books which require repeated commendations from the press in order to keep up the sale; but Atfield's Chemistry is not one of this sort. Since 1867 it has passed through eleven editions and now reaches the twelfth with unimpaired freshness and popularity. The present edition contains such alterations and additions as make it come up to the standard of chemical knowledge at the present time, and is especially adapted to the conditions of the U. S. Pharmacopœia. We can most warmly commend this admirable work to the attention of our readers. None better or clearer has ever been written; and every medical man who has chemical questions to study, on therapeutics, in hygiene or in toxicology, would do well to have it on his shelf or in his hand.

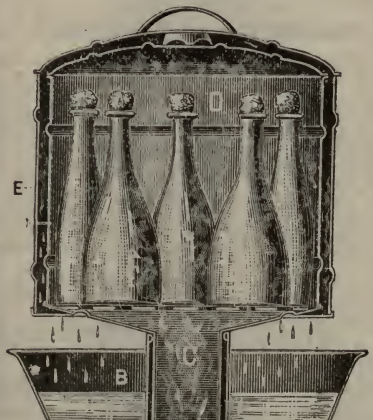
LITERARY NOTES.

—P. Blackiston, Son & Co., Philadelphia, will publish about March 15, a new Medical Dictionary, by George M. Gould, A. B., M. D. It will be a compact one volume book, containing several thousand new words and definitions, collected from recent medical literature, while the total number of words is beyond that in any similar book. It includes also elaborate and useful tables of the Bacilli, Leucomaïnes, Ptomaïnes, Micrococci, etc.; of the Arteries, Nerves, etc., and of the Mineral Springs of the U. S., together with other collateral information.

NEW REMEDIES AND APPLIANCES

In this department, notice will be given of Remedies, Food Articles, and Instruments or Surgical Appliances of which specimens are sent to the Editor; it will bear the same relation to these articles that the department of Book Reviews now does to books.

Steam Sterilizer.



Wilmot, Castle & Co., of Rochester, N.Y., send an "Arnold Steam Sterilizer," intended for use *in laboratories*, for bacteriological investigations; *in hospitals*, for general sterilizing purposes; *in physicians' offices*, for sterilizing surgical dressings, instruments, clothing, etc., and *in the household*, for

sterilizing milk, drinking water, preparing foods for children, making and re-heating poultices, heating flannels for local applications, for steam and medicated inhalations, for disinfecting toys and clothing after infectious and contagious diseases, etc.

The apparatus maintains a uniform temperature of 212° Fahrenheit in every part of its sterilizing chamber, has been used in various laboratories of the country.

The apparatus is simple, serviceable and cheap.

Water is poured into the pan or reservoir whence it passes slowly through three small apertures into the shallow copper vessel beneath, becomes converted into steam and rises through the funnel in the centre to the sterilizing chamber above. Here it accumulates under moderate pressure at a temperature of 212° F. The excess of steam escapes about the cover, becomes imprisoned under the hood and serves to form a steam-jacket between the wall of the sterilizing chamber and the hood. As the steam is forced down from above and meets the air it condenses and drips back into the reservoir. The time required for sterilizing milk is from 30 to 45 minutes.

CORRESPONDENCE.

Antifebrin, or Acetanilid.

To the Editor:

Sir: In a communication to the Reporter of Feb. 22, there was a discussion as to the relative values of antipyrin and antifebrin, considered from a point of money-value; and from the fact that the name of antipyrin is copyrighted, it was advised that antifebrin be given the preference.

In regard to the superior value of antifebrin over antipyrin, I think there is no doubt; as I indicated in a note to the *Medical Record*, Oct. 19, 1889.

In regard to the name being copyrighted, I wish to add that antifebrin is itself a copyrighted drug, almost as much so as antipyrin. Antefebrin is the name under which the chemical compound, acetanilid, is sold. Under this name its market value is almost three times that of acetanilid.

I should not like to depreciate the value of a drug because it was patented, if it had value not held by other drugs, but as antifebrin has no values that acetanilid has not; as both are exactly the same chemically and therapeutically, and as the one is so much cheaper, I see no reason why it should not be used exclusively in preference to the copyrighted antifebrin.

Yours truly,
Harvey B. Bashore, M. D.
West Fairview, Pa.,
Feb. 23, 1890.

[We agree entirely with the general principle involved in the letter published in the Reporter, Feb. 22, and in that just given. But we think it right to add that, if a remedy can be better prepared by firms which protect their business interests by using a distinctive name for their products than by firms who do not adopt the plan, no sentiment should lead the medical profession to withhold from their patients the advantage to be gained by using the "trade-mark" article. If acetanilid can be obtained as good and pure as that sold under the name of "antifebrin," then the former should be preferred; if not, then a physician's sense of duty to his patients should lead him to employ the better drug.—Editor of Reporter.]

Opium Habit.

To the Editor.

Sir: It may prove a reminder to the medical expert to recall a pathognomonic sign of the opium habit, viz.: a look of shame akin to vacancy, when the victim of the habit has been unexpectedly visited. Of course the history of such cases, the symptoms, etc., are confirmatory of the diagnosis. The writer has noted five cases of this pernicious habit during a period of thirty years' practice: one subject was a learned college professor; three were physicians; and two were married women. One of the latter was the daughter of a physician, and the other was the wife of a physician. The professor became a prey to the most tormenting hallucinations. Amid his lucid moments he was eager to be relieved, but was powerless in himself to escape. Of the three physicians, two died at an early period of life with symptoms of general paresis, preceded by nervous apoplexy. One was once a respectable practitioner in Washington City, and the other of Fredericksburg, Va. The third is still living, and has been committed to a hospital for the insane. The two women are still cared for by their friends, with no hope of cure beyond palliating remedies.

Yours truly,
Frederick Horner, M. D.,
Marshall, Farquier Co., Va.,
Feb. 27, 1890.

Notes and Comments.

Implantation of Decalcified Bone Chips.

Dr. William B. Van Lennep, of Philadelphia, sends to the Reporter a pamphlet giving an account of an apparently successful operation of implantation of bone chips. He says:

In the September number of the *American Journal of the Medical Sciences* there appeared an article by Dr. Nicholas Senn "on the healing of bone cavities by implantation of antiseptic decalcified bone." While reading this paper I saw a case I had operated on over two years ago, where a large cavity in the tibia had taken nearly eight months to heal by the slow process of granulation. The result is a deep depression and a weak cicatrix, which breaks down and ulcerates after every bruise. The attempt had been made to fill the cavity with blood clot, as had been suggested by Schede a short time before; but this failed. Senn says that the blood clot is too good a culture soil for germs; that the loss of blood, if a large clot is required, may be dangerous; that it may be insufficient, on the other hand, to fill the cavity. He also very justly criticizes the proposition of Neuber to turn down and tack flaps of the soft parts into bone cavities, because the flaps are apt to slough, and in certain cases much healthy bone has to be removed to allow of their being turned in. He proposes to fill the cavity, in place of the clot or the sponge, with chips of decalcified bone.. These he prepares as follows: The fresh tibia of an ox is taken and cut across into sections about two inches thick. The medulla is cleaned out and the bone decalcified in dilute muriatic acid, which is frequently changed. The acid is then washed out and neutralized by a weak solution of caustic potash. Thin sections are made in the long axis of bone, which are kept in sublimated alcohol, 1 to 500.

I immediately prepared a tibia in this manner, and have since obtained some specimens like those used in Senn's experiments. They are not quite as completely decalcified as those I prepared and used.

I was about to operate on a young man for extensive necrosis of the femur, and, with his consent, determined to give this method a trial. There were two sinuses just above the knee, a large one on the inside and a small one on the outside, through both of which the rough bone could be readily felt. A number of bits had been discharged, and one large sequestrum seemed loose. Higher up, on the outer side of the thigh, was a deeply depressed, long, adherent cicatrix, resulting from a former similar trouble of several years' duration. The abscess had been incised, and nature allowed to complete the cure. The scar is weak and tender.

Operation, September 23, 1889. After the usual antiseptic precautions, the limb having been rendered bloodless by the Esmarch bandage, an incision was made up and down from the internal sinus, freely exposing the bone. Two large sequestra and a number of small pieces were removed, leaving a deep groove running from the internal condyle upward for about six inches, and ending in a pocket. Just below the latter was an opening through the bone to the sinus on the outer side. The rough places were rendered smooth with gouge and chisel, the whole suppurating area carefully and thoroughly scraped, and the inflamed soft parts freely excised with curved scissors. After washing out with hot water, strongly sublimated, twelve per cent. solution of chloride of zinc was applied with a brush; the irrigation was repeated, and iodoform was blown in. The chips, previously soaked in weak sublimate and dusted with iodoform, were taken from a disinfected towel and tightly packed into the whole cavity. There being no periosteum available with which to cover the chips, the soft parts over both openings were drawn together with buried catgut and superficial silk sutures. This was accomplished with difficulty, producing considerable tension, and a small aperture was therefore left on the inner side of the thigh for drainage. Iodoform dressings were applied, and the limb was done up on a posterior metal splint. The Esmarch tubing was then removed.

There was a smart fever the next day (103°) and good deal of oozing, the dressings becoming saturated with blood. They were changed, and the drainage opening was slightly enlarged to relieve tension. The bone chips could be seen entangled in a dark clot. The wounds closed by first intention, except at this point, which afterwards suppurated. The patient went to his home in the country on the twelfth day, returning to have the opening washed and dressed from time to time.

The bone chips have evidently done their work, as the contour of the limb is well pre-

served and the cicatrix is depressed only at the point mentioned. There must have been a new formation of bone, for a hard elevated lump can be felt instead of the deep groove. In its centre is a crater-like depression where the wound suppurated. Only two of the chips were discharged and found in the dressings.

The case was anything but favorable for implantation, and required most scrupulous scraping and disinfection, especially in the pocket at the upper end and the opening through the bone. There was no periosteum with which to cover the chips, and the soft parts were drawn together with great difficulty. The tension and the septic cavity caused me considerable anxiety, and when the temperature shot up, I feared that I would have to open the wound and allow healing to take place by the slow and deforming process of granulation. While the blood clot is used in the interstices between the chips, it is supported by them, and breaking down is further prevented by their being not only aseptic but antiseptic. For this reason they also tend to counteract the effects of any shortcomings in disinfection.

The result is certainly very satisfactory, healing being rapid and without deformity or tender scar. I feel that the case should be reported as one of the first since Senn's publication. Besides, it is our duty to put on record successes and failures with any new method in order to help define its value.

American Medical Association.

The officers of the American Medical Association are as follows:

President—E. M. Moore, M. D., New York; *Vice-Presidents*—J. W. Jackson, M. D., Missouri; H. H. Kimball, M. D., Minnesota; J. H. Warren, M. D., Massachusetts; T. B. Evans, M. D., Maryland; *Treasurer*—Richard J. Dunglison, M. D., lock box 1274, Philadelphia; *Permanent Secretary*—Wm. B. Atkinson, M. D., 1400 Pine Street, Philadelphia; *Librarian*—C. H. A. Kleinschmidt, M. D., Washington, D. C.

Trustees of the Journal—Leartus Connor, M. D., Detroit, Mich., until 1890; E. O. Shakespeare, M. D., Philadelphia, until 1890; Wm. T. Briggs, M. D., Nashville, Tenn., until 1890; W. W. Dawson, M. D., Cincinnati, O., until 1891; J. M. Toner, M. D., Washington, D. C., until 1891; John H. Hollister, M. D., Chicago, Ill., until 1891; P. O. Hooper, M. D., Little Rock, Ark., until 1892; Alonzo Garcelon, M. D., Lewiston, Me, until 1892; Isaac N. Love, M. D., St. Louis, Mo., until 1892.

Judicial Council—N. S. Davis, Ill.; H. Brown, Ky.; Wm. Brodie, Mich.; D. J. Roberts, Tenn.; R. C. Moore, Neb.; T. A. Foster, Me.; J. B. S. Holmes, Ga.; J. H. Murphy, Minn.; Jos. M. Toner, D. C.; J. K. Bartlett, Wis.; A. B. Sloan, Mo.; X. C. Scott, Ohio; B. McClure, Iowa; W. A. Phillips, Kan.; G. B. Gillespie, Tenn.; W. C. VanBibber, Md.; Charles S. Wood, N. Y.; J. McF. Gaston, Ga.; W. H. O. Taylor, N. J.; Geo. L. Porter, Conn.; J. F. Hibberd, Ind.

Officers of Sections.

Practice of Medicine—J. H. Musser, Pa., Chairman; H. McColl, Mich., Secretary. *Surgery and Anatomy*—B. A. Watson, N. J., Chairman; J. B. Deaver, Pa., Secretary. *Obstetrics and Diseases of Women*—W. W. Potter, N. Y., Chairman; J. Hoffman, Pa., Secretary. *State Medicine*—John B. Hamilton, D. C., Chairman; F. S. Bascum, Utah, Secretary. *Ophthalmology*—S. C. Ayres, Ohio, Chairman; E. J. Gardiner, Ill., Secretary. *Laryngology and Otology*—John O. Roe, N. Y., Chairman; Frank H. Potter, N. Y., Secretary. *Diseases of Children*—Isaac N. Love, Mo., Chairman; E. F. Brush, N. Y., Secretary. *Medical Jurisprudence*—T. B. Evans, Md., Chairman; T. D. Crothers, Conn., Secretary. *Dermatology and Syphilography*—W. T. Corlett, Ohio, Secretary. *Oral and Dental Surgery*—J. L. Williams, Mass., Chairman; E. S. Talbot, Ill., Secretary.

Instruction in Hygiene.

A course of instruction in practical hygiene, under the charge of Dr. John S. Billings, assisted by Dr. A. C. Abbott, will be given in the Johns Hopkins University, Baltimore, during the months of March, April and May, 1890. The course began Monday, March 3, and will continue for four days in each week (Monday, Tuesday, Thursday and Friday), from 9 until 12 o'clock A. M., until Friday May 30. One hour each day will be given to demonstrating the methods to be employed in the day's work, the remaining two hours will be for the practice of the methods by the students.

The instruction will be given by lectures and practical work in the laboratory. A course of four lectures will be given by Dr. Billings, during April, on the subject of "Sewage Disposal." The practical work in the laboratory will comprise: investigation of the atmosphere, both physical, chemical and bacteriological; chemical and bacteriological investigation of water; physical, chemical and bacteriological investigation of the ground; inspection of milk and meat; studies upon ventilation and heating; practice in disinfection and sterilization, both chemical and thermal; inspection of ground for building sites; inspection of building materials; inspection of clothing materials.

Further particulars may be obtained from the Superintendent of the Johns Hopkins Hospital, North Broadway, Baltimore, Md.

Iowa State Medical Society.

The thirty-ninth annual session of the Iowa State Medical Society, will be held at Des Moines, Iowa, April 16–18, 1890. Officers: J. M. Emmert, Atlantic, President; G. F. Jenkins, Keokuk, First Vice-President; E. F. Clapp, Iowa City, Second Vice-President; C. F. Darnall, West Union, Secretary; J. W. Cokenower, Des Moines, Assistant Secretary; G. R. Skinner, Cedar Rapids, Treasurer.

Members of the medical profession of Iowa are invited to attend.

The Society is in a flourishing condition, and its sessions are always interesting and profitable. It will present this year an unusually good programme and anticipates an enjoyable occasion. Measures of importance will be presented and discussed relative to the enlargement and extension of the benefits of State and auxiliary co-operation. There are in Iowa about 3,000 regular physicians, and only a small percentage of them are members of the State Medical Society. The fifty local societies of the State have a membership of 1,500, are in good working order, and it is to the interest of each that it have full representation at this meeting. An apppeal is therefore made that each county or district organization send a complete delegation, and that the old members assemble once more. Those who have failed to retain their permanent membership can be reinstated by paying their arrears, or by coming as delegates. All railroads doing business in Iowa have granted the usual one and one-third rates, if the conditions stated elsewhere are complied with.

Any further information will be cheerfully given by the Secretary, Dr. C. F. Darnall, West Union, or by the chairman of the Committee of Arrangements, Dr. L. Schooler, Des Moines.

Death from Chloroform.

The *Lancet*, February 22, 1890, reports a death from chloroform; the patient was a young woman, twenty-four years old, admitted to a hospital in Exmouth, to undergo an operation for lupus affecting the face. She was placed under the influence of chloroform, a Skinner's inhaler being used, and about twenty drops being allowed to fall upon the flannel. She inhaled for seven or eight minutes, when she was considered fit for operation; the face piece was removed and the scraping of the nose was commenced. In about three minutes after this the administrator saw signs of returning consciousness and gave more chloroform; "then," the report says, "she suddenly stopped breathing." The tongue was seized with forceps and withdrawn from the mouth, while Silvester's method of artificial respiration was carried out and continued for half an hour. The condition of the heart was not noticed at the moment of respiratory failure. Half an hour's performance of artificial respiration was fruitless. At the necropsy, conducted by an independent authority, the heart was examined, and pronounced sound, and it was stated to give *post-mortem* evidence "that the heart acted after breathing stopped." The patient had had chloroform successfully administered on several occasions before, and had given no anxiety.

Investigation of Electrictity for Fibroids.

The Philadelphia County Medical Society has appointed a committee consisting of Drs. Parvin, Hirst, Montgomery, Massey and Baldy to conduct a series of observations relative to the effect of electricity in fibroid tumors of the uterus.

The committee requests the profession at large to send any case of the kind they may be able to the Gynecological Out-patient Department of the Pennsylvania Hospital, Mondays, Wednesdays and Fridays at 12 o'clock.

Strangulated Hernia and Pneumonia.

Pneumonia not infrequently follows the reduction of incarcerated hernia, and the ninety-third volume of the *Archiv. für Klinische Chirurgie* (p. 501) contains an interesting contribution from the pen of Dr. Ed. Pietrzikowski in which an effort is made to prove the view, first advanced by Professor Gussenbauer, viz.: that the pneumonia which follows the reduction of hernia is of an embolic or hemorrhagic nature: the emboli being formed in the blood-vessels of the imprisoned gut, and diffusing themselves throughout the circulation after liberation of the latter. From his clinical observation, which is based on the history of 401 cases, the author concludes that the lung complication arises in about twenty-five per cent. of all cases, no matter whether the reduction is effected by taxis or by herniotomy, and as a rule only where the blood stasis in the strangulated intestine is not so complete as to be entirely isolated from the circulation after the operation. The author also approached this question from its experimental side by producing artificial herniæ in fifteen dogs. After these were reduced by herniotomy, he found that in ten instances the lungs contained hemorrhagic infarcts, while in six the liver was similarly affected—all of which was believed to be due to the absorption of thumbi from the blood-vessels of the liberated bowel.

NEWS.

—The grip has made its second appearance at Hazleton, Pa. On March 11, forty cases were reported.

—Influenza is raging in Teheran, causing 70 deaths daily. Several members of the Shah's household are among the sufferers.

—Telegraphic communications from Bombay, dated March 13, state that an epidemic resembling influenza is spreading in India.

—A dramatic poem, by Dr. S. Weir Mitchell, entitled "The Masque," was produced at a Philadelphia theatre on March 8, and very favorably received.

—There is great excitement in the vicinity of Fountain Head, Sumner county, Tennessee, over the appearance of spotted fever or meningitis. There have been seven deaths, and there are several new cases.

—The third International Congress against the Abuse of Alcohol will be held in Christiania, Sweden, from September 3 to 5, 1890. Dr. Forel, of Zurich, will act as President. All communications should be addressed to the General Secretary, Dr. G. E. Bentzen, in Christiania.

—At a meeting of the Board of Charities and Correction, Dr. Daniel E. Hughes was elected Chief Resident at the Philadelphia Hospital, vice Dr. Wells, resigned. The resignation of Dr. W. E. Hughes as examiner of insane cases was received, and Dr. Judson Daland was elected to the position.

—The fourth annual meeting of the Visiting Nurse Society, of Philadelphia, was held March 7. Mrs. J. Dundas Lippincott presided, and the report of the managers was presented by the Secretary, Mrs. Wm. F. Jenks. The reports showed that 8,492 visits had been made by the nurses to over 600 patients.

—The Woman's Medical College of Pennsylvania held its Thirty-eighth Annual Commencement at the Academy of Music, March 13. Forty graduates received their diplomas. The degrees were conferred by Mr. T. Morris Perot, President of the College, and an address to the graduates delivered Dr. William H. Parish.

—The North Philadelphia Hospital obtained a charter March 5, the incorporators being Drs. F. S. Bower, F. V. Van Artsdalen, Peter Hooper, J. W. Brockbank, J. K. Cassel, David Moffet and W. G. Howell. The large three-story stone building, 3328 North Broad street, containing 15 rooms, is being put into proper condition for hospital purposes. Six beds will be prepared for use immediately on the opening of the institution, which will probably be during the present month.

—Miss Clara Barton, President of the American National Association of the Red Cross, has been investigating the statements concerning the suffering and destitution existing among the pioneer settlers of North and South Dakota, with a view of aiding those in need of help. She has ascertained that there is urgent necessity for immediate action, and now appeals to the public for cash subscriptions, large enough to meet every emergency. She has information that there are at least 5,000 people dependent, and many more who, though they have provisions for themselves, need feed for their stock. H. T. Helgesen, State Commissioner of Agriculture, Grand Forks, N. D., will distribute all funds sent to his address.

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Clinical Lectures.

CIRCUMCISION FOR CONCEALED CHANCROIDS.—ENUCLEATION OF ADENOID TUMOR OF GROIN.—INTERNAL URETHROTOMY.[1]

BY JOHN B. DEAVER, M. D.,

PHILADELPHIA.

Circumcision for Concealed Chancroids.

Gentlemen: The first case I have to show you is one of great interest. The patient has had both chancroids and gonorrhœa. He comes now before us with a penis which is greatly swollen. He says this is the third time it has been in this condition; the first, two years ago, and the second, last winter. Each attack lasted three or four months. His present attack started with a chill one morning last month. Two hours later his penis and scrotum became very heavy and œdematous, and have remained so ever since. I do not know how long he has been in the venereal wards, but for three weeks at least. He has a very long prepuce which is adherent to the glans penis. The swelling of the scrotum appears, at first sight, very much like elephantiasis, which is, as you know, a diseased condition of the connective tissue and lymphatic vessels. When I saw him the first time I divided the swollen prepuce along its dorsal aspect, but with only partial relief. Not feeling satisfied, I told him a day or two since that I would etherize him and make a thorough exploration of the parts. To this he agreed, and to-day I have brought him before you for this purpose.

This œdematous condition may be due to an inflammation of the mucous covering of the glans (balanitis), or to the mucous lining of the prepuce (prosthitis), or to a combination of the two (balano-prosthitis). It may

[1] Delivered at the Philadelphia Hospital.

also be caused by an angeioleucitis, phlebitis, or to a thrombosis of the prostatic plexus of veins, obstructing the return of blood through the dorsal veins of the penis, which empty into this plexus. Examination per rectum reveals nothing abnormal in the prostate gland, or in the prostatic plexus; neither is there any evidence, locally, of inflammation of the lymphatics or of the veins; therefore I am led to think that the trouble has resulted from one of the forementioned conditions, and that we will most probably find here concealed chancroids.

This is certainly a very interesting condition, and one not often seen outside of an institution like this. On the dorsal aspect but a small portion of the glans presents itself. I propose now to slit up the prepuce still further than was done by the original incision, and freely expose the glans, and ascertain its condition. This will be the first step in our operative procedures. The swelling here is due largely to the deposit of lymph as well as of serum. In some respects this seems to be a trifling case, and yet in others it is a case of great importance.

The finger is the best director the surgeon can employ. I use it here, and can insert it beneath the point of constriction. The probabilities are that the deposit of lymph has been the active factor in the causation of the obstruction to the circulation with this resulting œdema. In making my incision I have liberated the organ, and I find it to be the subject of an ulceration of a specific character, namely, chancroidal. I propose now to remove a wedge-shaped piece circularly from this prepuce, or, in other words, to do a circumcision. I prefer to do this operation by dissection, and not use the circumcision forceps. There is a large quantity of inflammatory material here which hide the land-marks somewhat and render the operation more difficult. I show you now quite a large piece of the prepuce which I have removed. A certain amount of resolution will take place, and I have therefore not taken away as much as it appears that I should have done. I am careful to arrest all bleeding so as not to embarrass the process of repair; and since we have so much inflammatory thickening here, it is especially important that we secure union as soon as possible.

I now bring the parts in apposition by interrupted aseptic silk sutures; tying them loosely so as not to produce tension and in this manner avoiding strangulation.

In suturing a circumcision I place the first suture in the middle line of the dorsum and the second in the middle line of the under surface, and then simply insert the required number on either side to hold the edges in apposition. I expect the process of repair to go on uninterruptedly.

The after-treatment consists in dressing the organ antiseptically. After dusting the parts with iodoform the penis is wrapped in gauze, wrung out of a 1-2000 bichloride solution. In case hemorrhage should occur, we will apply cold in the form of an ice-bag. Should this fail, we will take out one or two stitches and tie the bleeding points. I next apply a piece of rubber plaster, carrying it around the dressing. The organ is now retained in an elevated position against the abdomen by means of a binder.

Enucleation of Adenoid Tumor of Groin.

The next patient I show you is one who has a tumor of the groin. His history is that he has always been healthy. He had an attack of gonorrhœa eleven years ago, but denies having had any other venereal disease. He has had a swelling in the left groin for the past five weeks, which is not painful when he is quiet, but gives him some discomfort and pain on movement.

We have here the presence of a purely unilateral swelling, irregular in appearance, of five weeks standing, not painful when patient is quiet, and with no history of venereal trouble of any kind. In cases of gonorrhœa, we are not surprised to find a sympathetic enlargement of the glands of the groin, and if these break down, we have a sympathetic abscess as the result. In chancroid we have a unilateral enlargement of the glands, while in true chancre we have a bilateral enlargement. We are inclined to believe that the history which this man gives us is true, that the enlargement is the result of exposure to cold and overwork, and that it is not due to any venereal excesses. We can have a sympathetic enlargement of the glands of the upper part of the thigh from an onychia or a paronychia. This enlargement results in a pathological condition of the gland which may go on to form a typical tumor of the adenoid variety, and that is the kind of tumor I believe we have here.

The swelling presents itself over the saphenous opening and in the line of Poupart's ligament. It might be mistaken for a hernia, but it is easy to differentiate it from a

hernia. I shall proceed to dissect it out. I make my incision in the line of Poupart's ligament, dissecting off the fascia with the scalpel. You now notice that I am enucleating the tumor, keeping my knife close to the tumor itself while cutting the bands of fascia. This is a very simple procedure as long as you follow this rule. Having enucleated the growth I cut it open, when it is very evident that it is glandular structure. I have exposed the saphenous opening, also the aponeurosis of the external oblique muscle. I have, at this aponeurosis, not opened up the inguinal canal. I tie all the bleeding points with catgut, introduce a rubber drainage-tube and bring the edges of the wound together with interrupted silver-wire sutures. The wound is dressed antiseptically, and the thigh flexed slightly upon the abdomen, in which position it will be kept till union is complete.

This, in my judgment, is the proper course to pursue in all growths of this character, and not to waste time in attempting to remove them by local applications, or to allow them to break down and form abscesses—which latter often leave sinuses for the ultimate cure of which it will be necessary to lay the parts open, and to remove the remaining degenerated gland structure.

Internal Urethrotomy.

The next patient I bring before you is one on whom I expect to do an internal urethrotomy. I cannot show you too many of these cases of stricture. This man had a chancre seven years ago. He had gonorrhœa three years ago; the discharge continuing four or five weeks, for which he never did anything—a very important point. If left alone cases of gonorrhœa do infinitely better than where doctored with strong astringent injections, and sandal-wood, copaiba and the other drugs used for this purpose. Under the above treatment, if you obtain a cure in a case of gonorrhœa in say ten weeks you have cause to be congratulated.

Three months ago he first noticed trouble in passing urine; he had at this time retention. Micturition now is not painful, but it is frequent, and but little urine is passed at a time. I have already told you that a stricture which will produce retention is often not of small but of large calibre. A study of the anatomy of the urethral canal will explain the reason for this. It is largely supplied with nerves from the hypogastric plexus of the sympathetic system, also from the spiral system of nerves, and as a result, sympathetic constriction is often produced by a small lesion. This is the rationale of these cases of retention occurring where there is a stricture of large calibre. Of course this is not true in every case of retention, but it must be borne in mind.

There are some abrasions here on the glands, the result of irritation produced by the discharge of urine, which is ammoniacal. Every urethra has an individuality, and there is a proportionate relation between the size of the urethra and the size of the penis. This organ measures three and one-quarter inches in circumference, corresponding to a urethra with a calibre of 32 millimeters. The orifice of the urethra here is very small and does not admit this urethral-meter, which is 20 millimeters in circumference. The first step in the operation is to divide the meatus, which I do with the meatotome, making the incision along the floor of the urethra and enlarging it to 32 millimeters, the normal character of the canal as determined by measurement. In some cases the calibre of the urethra is larger than that indicated by the circumference of the penis, this being demonstrated by the urethral-meter.

I next carry the urethral-meter, closed, down to the bulbo-membranous junction, which you see I do readily. I now dilate it to 32, the size learned by measurement, when I find it glides to and fro very easily; I therefore expand it by turning the screw at the end of the instrument, until I meet with the slightest amount of resistance, with the penis well elongated, when I look at the dial and find that the hand thereon marks 34, the full calibre of this urethra. I now withdraw the instrument slowly and do not meet with any resistance till I reach this point, 2¾ inches within the meatus, where I find a stricture, the calibre of which I learn also by turning the screw, the hand on the dial thus diminishing the size of the bulb of the meter, and allowing it to be drawn through. The contraction is 32. This canal is trespassed upon at this point to the extent of 2 millimeters, in other words we have here a stricture of large calibre. Having passed beyond this point of contraction, I again screw the instrument up to 34, the normal calibre, when it glides along the remaining portion of the urethra without meeting with any resistance till I reach the meatus, where it is arrested; I having only enlarged this to 32, therefore I divide it again, making it 34

millimeters in circumference ; in this manner you see I have restored the urethra to its normal calibre. It now remains for me to divide the stricture with the urethrotome; this operation you have seen me do many times and with most gratifying results.

ATAXIC PARA-PARESIS, ETC.

BY HENRY M. LYMAN, M. D.,
CHICAGO, ILLINOIS.

PROFESSOR OF PHYSIOLOGY AND DISEASES OF THE NERVOUS SYSTEM IN RUSH MEDICAL COLLEGE, CHICAGO.

Gentlemen: This patient is sixty years old, and his occupation is that of finishing furniture. Two years ago he began to have pains in different parts of the body, which have continued to the present time. At night, when he walks about, he is unable to maintain his balance. He says that he takes a glass of beer occasionally, but no whiskey. There is inability to stand with the eyes shut. There is exaggerated patellar-tendon reflex, paresis of the ocular muscles, some disturbance of sensation, and a slight ankle clonus on the right side. What is more conspicuous to the patient is a feeling as if the legs were going to jerk, making it difficult for him to use them when he wants to.

What is the diagnosis? One gentleman says: "Inflammation of the lateral columns of the cord." It is not exactly an inflammation. Would it not be better to say that there is a *degeneration* of the lateral columns of the cord? We have none of the symptoms of inflammation, but there are symptoms of degeneration, and the degenerative process has involved the lateral columns of the cord. What shall we call this disease? Descending degeneration? No. Descending degeneration starts from some lesion, such as a hemorrhagic clot in the brain; but there is no evidence or history of that in this case. What disease would you call this, if the patellar-tendon reflexes were absent and the patient complained of lancinating pains, with a disturbance of innervation about the eyes, such as you now observe? You would call it locomotor ataxia, would you not? And what symptom is needed to complete the picture of locomotor ataxia? Loss of patellar-tendon reflex. Instead of that we have an exaggerated reflex. That seems to be the only thing by which we may differentiate this disease from ordinary locomotor ataxia or tabes dorsalis. Dr. Gowers, and others who follow his teachings, consider it a disease by itself, and give it the name of ataxic paraplegia. It is ataxic, as was evident when the patient tried to balance himself. It is not exactly a paraplegia. That is a term which is not exactly appropriate here, and which should be confined to those cases in which there is complete loss of power. We might call it *ataxic para-paresis*, and this term answers well for that class of ataxic cases in which there is apparently a chronic weakness in the lower extremities, increased knee jerk, etc. We have no history of syphilitic infection in this case. You know that the majority of cases of locomotor ataxia follow syphilitic infection, but in cases of ataxic paraplegia, so-called, syphilitic infection is often absent. There seems to be that difference. Perhaps we shall have occasion to modify that statement in the future, but so far as statistics go at present, that seems to constitute one of the differences between the two disorders.

You remember that the seat of the disease in locomotor ataxia is in the posterior columns of the cord. Its seat in this case is to some extent in the posterior columns of the cord, but principally in the lateral columns of the cord. It is a disorder apparently in which there is a tendency to generalization of the degeneration through the pyramidal tracts of the cord, and to invasion of the posterior columns. If the disease happens to strike the central portions, near the median fissure, remote from the posterior nerve roots, then the patient does not complain of much pain. If, however, the nerve roots are encroached upon, he complains of pain, as in cases of locomotor ataxia. There are many grades of the disease; they run into one another. No two cases are alike, so that the pictures presented by the victims of chronic sclerosis or degeneration of the columns of the cord resemble one another very much, and at the same time differ considerably from each other.

The course of this disease and the treatment are identical with what has been considered under the head of tabes dorsalis.

Secondary Idiocy.

The next patient I show you is a little girl eight years old. She has some disturbance of the brain. A few weeks after birth she had an attack of scarlet fever. She recovered from the scarlet fever and

afterwards seemed perfectly natural. She learned to walk and talk, and her father says she was quite "smart" until about two years ago last Christmas. Seven months before that time she had diphtheria, and began to lose her mind. Her urine dribbled away from her unnaturally.

The probabilities are that deterioration of the brain followed as a consequence of the attack of diphtheria, although it was not enough to be noticed until after some six or seven months had elapsed. You know how seriously diphtheria injures the nerves sometimes, causing in some instances muscular paralysis; and there is no reason why it should not occasionally involve other parts of the nervous system as well as those connected with the muscles. Its progress and development are slow and insidious. In short, we may have mental disturbance following any of the infectious diseases. That is one of the curious legacies that infection of any kind leaves to the system of a patient that has been affected. After any infectious disease we may have secondary lesions of the brain that may impair the mind. Patients after typhoid fever occasionally lose their minds, and may or may not recover them. This is notably true in the case of syphilitic patients. A long time after syphilitic infection has taken place, and the primary symptoms have all disappeared, syphilis of the brain may manifest itself, with evidences of disordered intellect, resulting in some instances in complete insanity.

Here we have a case of mental destruction, following, I have no doubt, the diphtheritic infection. We are told that the child has had no other symptoms of ill-health. She is strong, eats well, and is perfectly quiet at night. It is not an uncommon thing for patients whose minds have been damaged to be entirely disordered during the day, yet capable of rest or sleep at night. You see it in certain cases of mania. Such patients are violent through the day, but sleep quietly at night. They wake up in the morning and are as wild and crazy as ever.

I have asked the father in what way the mental disturbance has shown itself, and he says that she speedily gets out of patience, runs from one end of the room to the other, throws her head from one side to the other, then pounds the top of her head with her hand. When she is hungry she gets angry more easily than was formerly the case, and sometimes cries, but as soon as she gets something to eat she is quiet.

There is no loss of muscular power in this case. The child is as strong as ever. Her gait is steady and apparently natural and she never falls. She runs around all day long.

We have here, then, a disease of the cortex of the brain. The intellectual organs of the brain are the ones that have suffered and these are very delicate. It is the most delicate structures that yield first; consequently the intellect is impaired before any of the lower functions which are common to the lower animals. We have a deterioration of the intellectual organs, reducing the patient to the level of the inferior animals. It is not a congenital condition, for if it were, we should call it idiocy. It is a secondary condition. So far as the future of the child is concerned, she is not likely to develop any further.

Unfortunately the treatment of such a case as this is exceedingly unsatisfactory. There is a defect in the intellectual organs of the patient, and we cannot put into the brain what is not there. If the condition were merely a lack of development there might be some hope for improvement, but where the intellectual organs have been injured or destroyed, the condition of the brain is analogous to that which is presented in the gray matter of the spinal cord in a case of polio-myelitis. A certain portion of the gray matter of the cord is lost, and it can never be replaced. So in the case of the brain of the patient before us. As there has been a destruction of what did exist, we have no means at our command of replacing it.

Neuralgic Headache.

Here is a man, 34 years old, who comes to us complaining of nervousness and "neuralgia," from which he has suffered for two or three years. The neuralgia commenced on the left side of the head, and extended down the left shoulder. He had received no injury at that time. Since then he has had venereal disease, but not before. He has never enjoyed good health, and while he has always been delicate, yet he has managed to get through each day's work, and has been able to work right along; never sick in bed. He is a shoemaker by occupation, accustomed to sitting and working on a bench. He left the shoemaking business and became a member of the police force. While on the police force his left

shoulder was dislocated and he has not felt well since. The pain in the head may last twelve hours or may disappear in half an hour. Its duration is irregular. During the past week he has lost his appetite altogether, his nourishment simply consisting of oranges. His bowels are regular; his tongue is white and rather anæmic.

I have seen during the last few weeks a good many persons who were suffering with pain such as this patient describes, evidently of a neuralgic character, and which is more likely to occur in persons previously debilitated, and in whom there is a predisposition to neuralgic disorders. I am rather inclined to consider it an evidence of the operation of the influenzal poison prevalent in the community. I have seen a good many people, who, while not completely affected with the ordinary catarrhal form of influenza, yet were extremely debilitated and suffered intense pain in the head and back, or in both places—pains of a neuralgic character, attended with great exhaustion and prostration, loss of appetite, lasting for a number of days, sometimes nausea and vomiting, with a catarrhal state of the intestines. All these are varieties of the influenza, and are due to infection with the influenzal poison; and I think it is not unlikely that this patient (although an old sufferer with neuralgia), from the symptoms he describes, the appearance of his tongue, the loathing of food, the prostration, etc., is one of the victims of influenza.

In such cases the best thing you can do is to wait a little time for the patient to recover. Six weeks may be requisite for recovery from the stage of exhaustion which these patients exhibit. Some of my medical friends have had an opportunity of personally testing this form of toxemia; and it is their universal testimony that they have experienced nothing so debilitating as the effects of this form of poison. I have observed in this and in previous epidemics that it takes no less than six weeks to recover from the debility thus produced. The nausea passes off in a few days and the appetite comes little by little. The ordinary tonics do very little good. I believe the taking of quinine in considerable quantities does no good. Doses of a single grain are preferable. Strychnine does very little good. The best thing is rest. The patient should take anodynes to relieve the pain, and anodynes containing opium are the best for these cases. Alcohol is an excellent thing for patients you can trust with it, and may be freely used with advantage. These remedies must be used cautiously when making prescriptions for persons whom you do not know. My impression is that rest, opiates and alcohol are the most useful remedies in the treatment of cases in which the influenzal poison is operative. When you have passed the period of acute influenzal poisoning, then you may advise such general treatment as would be proper for a patient who is convalescent from other infectious diseases.

Neuralgic headache is a very obstinate disorder, and requires general treatment as much as it does paroxysmal treatment, the treatment for the paroxysm consisting principally in putting the patient to bed and giving anodynes. Usually patients find some particular anodyne that agrees with them better than any other. Opium is as useful as anything in these cases, especially when given in the form of chlorodyne.

Phenacetine, acetanilid, and antipyrin work well with some patients for awhile, and then they cease to benefit them. Where there is great nervous prostration, it is not advisable to give them often on account of their action upon the heart. Many persons have been injured for the time being, and their convalescence has been delayed by the excessive use of these drugs during the course of this recent influenzal epidemic.

For this man I would recommend taking twenty drops of chlorodyne, and repeating it every two or three hours until he is relieved. I would then commence the use of alcoholic stimulants. I told you the other day that many of the elixirs are useful in such cases. The compound elixir of gentian, or of cinchona for example, are good tonics, and they should be administered for two or three months, along with general hygienic care.

School of Anatomy, Trinity College.—Arrangements have now been completed by which for the future the Anatomy School will be lighted by electricity. In the dissecting-room are fixed seventy-three incandescent lamps, each of twenty-five candle power, arranged in groups of four under enamelled shades. In the dynamo house are fixed an Otto gas-engine which supplies the motive power, and also two centrifugal pumps for raising the drainage of the College park twelve feet and discharging it into the city sewers.

COMMUNICATIONS.

REPORT OF A CASE OF EXCISION OF ENTIRE HUMERUS: OPERATION IN THE PRESENCE OF CHOREA MAJOR.[1]

BY J. C. SEXTON, M. D.,
RUSHVILLE, IND.

The case to which I would for a few moments invite your attention almost reports itself in the exhibition of the specimen. It is of very unusual surgical interest, owing to the importance of the structures involved and to the many and diverse aspects in which from date of injury to that of operation it presented; at the same time it is of no little medical interest from the fact that life was greatly endangered; not by the disease alone, but by a rare complication.

The history of the case is briefly the following: Thomas M., ten years old, was thrown on the ice and injured about the shoulder and right side in February, 1888. For a few days he suffered some pain and stiffness about the joint, which soon subsiding, little notice was taken of the accident. Not long after, the structures began to swell and arm and shoulder became tender and painful. Dr. Barnum, of Manilla, saw the case, and opened an abscess which pointed just below the deltoid insertion. Pain was relieved; a sinus followed, and later necrosis was discovered. I first saw the case on June 15. There was marked bone disease up to and involving the head of the humerus. About the shoulder and half-way down the arm the structures were all infiltrated. The bone itself at the middle third seemed enlarged, as if a callus were thrown out about it. There was, however, no history of fracture. Owing to the boy's condition of septic fever, loss of appetite, anemia, etc., as well as the excessive heat of the season, I declined to do any operation other than to excise and drain the tissue near the joint.

He was put upon tonics and his general condition improved so much that by the 25th of August he was able to visit me. Dr. M. Sexton was then consulted, and by his advice no operation was undertaken. The boy was kept quiet, and upon iron. His general condition continued fair for nearly a month, when pain returned and he began to lose ground. By the first of October it was noticed that the patient was having peculiar twitching and jerking movements of the hand and arm. Gradually these movements increased, became quite violent, and caused pain. Other portions of the body became rapidly involved so that by the twenty-ninth—the date of operation—he was in a most deplorable state. He had a severe chorea, involving almost every movable part of the body, and with it the peculiar expression of countenance indicating imbecility; while every motion produced pain in the arm and the patient was rapidly sinking under the wear and tear.

As far as the family were concerned, they simply demanded that something be done to alleviate his condition and urged us not to amputate if possible. Drs. Spurrier, Barnum and myself talked the case over, and, as you may well imagine, were not a little doubtful what was best to do. An operation of magnitude in the presence of severe chorea was without precedent in the knowledge of any of us; while at the same time it was not to be expected, from the history of the case, that much good could come of treating the chorea with the arm in its present condition. Whether we accept the theory of reflex chorea or not, the waste and drain upon the vital organs in this profuse suppuration and pain would from debility alone keep up the chorea; which, you note, had come on right in the presence of and in spite of strong tonic medication.

We decided to excise the head and as much of the shaft as was diseased, thinking we could at least save the lower third. In operating I made an incision from the tip of the acromic process directly downward, on the outside of the arm, for six inches. The tissues were lifted from the bone and the head was pushed up into the incision. The capsular ligament was too dense to be cut with scissors, and this part of the dissection had to be done with the scalpel and chisel. Just below the middle of the shaft the bone appeared healthy, and it was sawed into at this point; but the condition of the medulla and Haversian spaces showed it to be diseased also; so that the incision was prolonged to the ulnar condyle; the elbow joint was opened and the entire bone was removed.

No further interest attaches to the operation itself, which was done under careful antiseptic precautions. Thorough drainage

[1] Read before the Union District Medical Society at Hamilton, O.

was provided for and antiseptic dressings were applied. The forearm was carried across the body and fastened immovably in that position. Under the anæsthetic the chorea of course ceased, and it did not return for three hours after he awakened.

Then it began, but not violently, was painless, and the laryngeal muscles were uninvolved, so that the boy could speak intelligently and without those facial grimaces that are so marked and so distressing. Within a week the chorea was almost well, and this without using the remedies usually depended upon; for, by mistake on the part of the nurses, the Fowler's solution that was ordered was given in such small doses that it could not possibly have effected so prompt a result. At the expiration of ten days the chorea was well. In thirty days the case was dismissed and the boy began to use the arm.

His present condition, February 8, 1889, is as follows: General health is perfect; no signs whatever of chorea; union perfect throughout the entire wound; no signs of bony growth.

From tip of acromium to olecranon: R. 6 in., L. 8 in.; circumference greater than on well side; motion of fingers perfect; grip firm but not so strong as other hand. Can lift to a good advantage, and carry a burden; can dress himself. No atrophy has taken place; but the muscles have not been used at all, as the nurse feared that the patient might injure himself.

The appearance of the boy is very good, as to the arm which he is able to hold in a natural and easy position, so that he does not present the aspect of a cripple.

Concerning an operation of such gravity in the presence of chorea, I can find no reference. A very few recorded cases have been brought forward of minor operation, such as removal of foreign bodies, division of nerve branches, etc., by gentlemen who hold the theory of reflex chorea to be tenable. Some cases are cited in Holmes's *Surgery*, Vol. IV. Of grave operation in this connection there is not a case recorded in any literature at my command.

True chorea in an otherwise healthy individual is extremely rare. It is even doubtful if it ever occurs without some predisposing prostration. So, to my mind, it is much more rational to look upon the debility incident to prolonged suppuration as productive of the disease, rather than to hold it due to reflex irritation. At the same time, it must not be forgotten that the history of my case followed the rule of those cases supposed to demonstrate reflex chorea. It began in, and was for some time confined to, the arm; and, furthermore, it must be confessed that the anæsthetic, the shock of operation, the removal of local disease did, in some manner, exert a promptly curative effect upon the nervous phenomena. In what way this was accomplished I am not able to say. The effect of the anæsthetic in such cases is too well known for me to call attention to it here; but to credit etherization with the cure is a position that can hardly be maintained. It may not be out of place to speak of the unfavorable prognosis that attaches to chorea when dependent upon, or complicated by an injury. Most of you have, no doubt, noted the rapidly fatal termination of the case cited in the *American System of Medicine*, where an attack of chorea was complicated by a fracture of the humerus.

Excision of the entire humerus is an operation that is seldom performed. Coming, as it does, under the head of capital operation and being indicated so rarely, its place as surgical procedure is by no means fixed. The principal reasons that might be suggested for the rarity of the operation are: 1, that any lesion that calls for the removal of the entire bone comes within the indications for amputation at the shoulder joint; 2, because it has been stated by good authority that the mortality after amputation is less than after excision of the head with any considerable part of the shaft of the bone; and, 3, because it has been held that a flail-like arm is of no use whatever, and rather an incumbrance than otherwise.

On the other hand, it could well be maintained—at least for this particular case—that successful surgery is always good; that there may be bony regeneration of considerable amount; that the preservation of the form and outline of the member is much more sightly than an empty sleeve; that, on account of the shortening, thickening and consequent strengthening of the muscular tissues, no little degree of leverage will be preserved, and much valuable power of fingers, hand and wrist be retained.

I feel that one other word should be spoken here, before leaving the topic. I refer to action that is initiative and outside of recognized authoritative procedure. Circumstances not infrequently arise in course of practice when we are called upon to leave

the beaten path, which, in a surgical sense, we might say had been laid out by others. How shall we meet these contingencies? Timidly? fearing some wise one will say: "The fool rushes in;" or shall we strike out boldly to work a successful issue? Let us remember that it is the individual, not the disease that we treat. Laws and principles that have become a part of us, in our profoundly thoughtful moments, are not to be cast aside in the face of untried or new surroundings. Therefore my defense for a movement, which some of my hearers may be pleased to call rash, is this: You are confronted by a condition leading to a rapidly fatal termination; a fact, not a theory, embarrasses you; then, if you believe that the cause of the condition, remote or direct, lies in the local disease, I hold that duty and not choice, demands immediate action.

PNEUMONIA: WHAT IS IT?

(SECOND PAPER.)

BY HIRAM CORSON, M. D.,

CONSHOHOCKEN, PA.

Though Dr. Wells has spared neither time nor labor in making a thorough history of "pneumonic fever," and, in adopting that name, sought to impress his readers with his view of its being a constitutional disease and therefore to lead them to regard the *fever* as the disease, and the thing to be combatted; and as the name does not indicate to the reader what the disease really is, I shall speak of pneumonia—the disease which has been so fatal during the last score of years—by the name used by those who regard it as a local affection, which, as it develops, produces an increase of heat throughout the body, with other abnormal conditions—under the name of inflammation of the lungs.

The late Professor Dr. George B. Wood, of the University of Pa., one of the most accurate describers of disease and a practitioner of the greatest eminence, says, in his *Practice of Medicine:* "Pneumonia has three stages, and is universally applied to inflammation of the spongy tissue or parenchyma of the lungs. In the first stages the blood-vessels are merely engorged with blood, and the air-cells partly filled with a sero-mucous, somewhat bloody effusion. In the second stage a plastic extravasation has taken place, and the cells are filled with more or less concrete and bloody lymph. In the third stage the place of the plastic secretion has been supplied by a purulent fluid."

Dr. Wood was so truthful a man, had so great opportunities in the Philadelphia hospitals to see the condition of the lungs in the various stages—for they are all present at the same time where the disease continues to advance and embrace fresh portions of the lung—described by him, that I doubt not he is correct.

Dr. G. R. Martino, of Glens Falls, N. Y., in a paper read before the American Medical Association, in June, 1889, and published in its journal, September 21, 1889, remarkable for its accurate description of the disease as it exists in cases involving much of the lung, and for erroneous deductions in relation to treatment, thus speaks:

"The first abnormal symptom after the premonitory chill is the quickening of the pulse and the consequent increased flow of arterial blood. Now, if we could take a microscopic view of the minute arterial ramifications in the lung structure, we would discern a distention in the calibre of the arterial vessels in order to accommodate the augmented flow of blood; and if we would then glance at the veins, we would observe the plasma layer rapidly filling with white corpuscles, and the walls of the veins, irritated by the friction of increased circulation, would exhibit, here and there, white corpuscles adhering to their tenacious sides and finally penetrating their walls. A glance at the capillaries would show not only the white but also the red corpuscles forcing their way through the over-strained capillary walls, until the surroundings became engorged by their extravasation and the work of hepatization had commenced; for the comparatively large size of pulmonary capillaries, together with the fact of their not being supplied with vaso-motor nerves, render them easily dilatable under increased arterial pressure." Now, if we bear in mind the condition of the lungs, as described by Drs. Wood and Bartine, and which is the opinion generally accepted, we see that the disease is first a congestion, then an inflammation, and, finally, if the inflammation is not arrested, a suppuration. Dr. Wood says, that "it has been doubted whether a cure is ever effected in this last stage." If then, as I have already said, we bear these conditions in mind, we should have no great

difficulty in choosing the means to relieve the congestion of the first stage and the inflammation of the second. Measures which will not do this have but one thing to recommend them: they furnish opportunities for *post-mortem* investigations—opportunities greatly prized by the Solons of our times, as a means to prove or disprove the correctness of the diagnosis: a matter of first importance to them.

Are physicians now using means to rid the lungs of blood which is distending almost to bursting the coats of the blood-vessels and forcing the white and red corpuscles into the bronchial tubes and air-cells—as proven by the blood and the rusty-colored sputa in the bronchial tubes? Or do we let it go on, under the belief that it is a self-limited disease, and wait for a crisis, followed by a convalescence? And while waiting do we allow the suffering patient to pass from life with an illness of only two or three days, or to pass into the third stage, to a more lingering but certain death? Many persons have been lost by the belief that pneumonia is a constitutional disease, and that medicine must be given to hunt through the blood, to antidote the poison there—some, too, while the doctor waits for the crisis and the natural cure.

How do the members of our profession stand in regard to the means of cure? To me they seem to be divided into two classes, and two only: Those who try to relieve the overwhelmed and suffering lung by unloading its blood-vessels by the abstraction of blood by means of the lancet from the veins of an arm; and those who *never* bleed, but depend on giving relief by reducing increased frequency of the pulsations of the heart, with medicines which have that effect. Some give aconite, others veratria, or digitalis, or anything else that will do it: no matter to them about its depressing, poisonous action on the vital forces; no matter that digitalis, given in their large and repeated doses will cause death by a strong systolic action, or that some of the other poisonous medicines will cause death by so relaxing the heart that its feeble contractions cannot supply blood to the vital organs, and the doctor has to announce that death was caused by "heart failure": the pet name for the cause of death in pneumonia, when the patient is carried off in two or three days—a much shorter time than if the disease had taken its course without medicine being used.

When a few years ago, Bishop Vinton died in Philadelphia from pneumonia, after an illness of only two or three days, I was deeply impressed with the belief that the remedies applied for his relief might have aided the disease by their baneful action on his system. It is so difficult to so graduate the remedies spoken of above as to affect the system generally without absolute danger to life. So differently constituted are people, that doses which may be safe to one person may be dangerous to another, or useless to a third. How often since the Bishop's death have we been saddened by the loss of noble members of our profession and hosts of men prominent in the affairs of our country, by this disease, which forty years ago in this State was not dreaded by the public: so successful were physicians in curing it by the then efficient treatment. Now, the name carries terror with it everywhere. The eminent people who have died from this disease within a few years count by hundreds, and scarcely one out of fifty but died under the ministrations of the advocates of the "reformed treatment (?)," so-called by those who denounce blood-letting.

I have taken much pains to discover whether there is any one medicine used in the reformed practice, prized above all others to save life where there is a heavy congestion and rapidly advancing inflammation of almost an entire lung. "The object aimed at," says Dr. Bartine, "is to hold the pulse below eighty." Again he says: "That is not only what should be done, but what must be done to save life." Now I know full well *that* is *not* necessary. Scores of times, after I have bled freely with great relief to the patient and arrest of the disease, the heart, though tamed by the venesection, continued its pulsations from 80 to 100 times, or sometimes even more, for two or three days; and yet the convalescence went on. Again Dr. Bartine says: "Keep your thermometer in your pocket; it is of little or no use in pneumonia. Death does not result from high temperature, but from high arterial action. The physician who, dallying with his fine thermometer, endeavors to cure pneumonia by reduction of temperature, will make about as much headway, and will be about as successful as he would be in trying to eat soup with a pegawl." Let me here ask Dr. Bartine, whether the increased temperature in pneumonia is not due to increased arterial action; and if so, would not the thermometer indicate to

the physician the increase or decrease of arterial action, and thus be useful to the practitioner? Certainly just as useful in this disease as in any other. Again he says: "You may ask: with what remedies do you hold the pulse at this point" (below eighty)? and adds, "Veratrum viride seems to have served me best." Dr. H. A. Hare, who was present at the reading, said that the use of veratum viride was an old and very useful method; but a great mistake was made in saying, "use cardiac sedatives in pneumonia," without recognizing the fact that they are to be used in the first stage, before congestion has gone on to consolidation. He said: "*The man who gives such drugs at the middle or end of an attack of pneumonia might as well stab his patient;*" and added: "Digitalis is to be used at such times." If this be true, how many patients have been sent to their graves by the use of this much used medicine. For, well do we all know, that it is the most used of all the arterial sedatives to keep down the pulse. And even Dr. Bartine has peremptorily declared it *must* be kept down; and his favorite means for that purpose is veratrum viride. But it is not only Dr. Bartine who disregards the stage of the disease, and uses it in all stages if the pulse be above eighty. I have long believed that nearly all the cases which terminated in death within four days were hurried there by this potent and dangerous drug. There are few patients with uncomplicated pneumonia who, if let alone, would die in less than a week. Dr. J. E. Atkinson, of Baltimore, followed Dr. Hare and "objected to the claim that the use of veratria in the treatment was new; it had been many years under trial and had *not* received general acceptance." If Dr. Hare's utterance be true, then veratrum viride can rarely be used at all without killing the patient; for a physician is seldom called before the second stage has existed for some time.

I have made inquiries of many of the "no blood to spare" class, and have rarely found two that have nearly the same treatment, though they generally have in view to retard the action of the heart. Those who use aconite are afraid to use veratria, while the latter regard aconite as not only more dangerous but also less efficient. Those who use digitalis are afraid of the two drugs just named; and those who give one or two drops every hour or two hours denounce the twenty drops given every two hours—as is sometimes done—as being extremely dangerous. Beside these arterial sedative practitioners, there is another large class, who stand by the bedside, giving to their confiding patients sulphate of quinine in large, frequently repeated doses, to reduce the heat of the body. "If we can only keep down the temperature," they say, "we need have no fear of heart failure." Now, has not Prof. H. C. Wood, after many careful experiments, shown that, even in very large doses, quinine cannot be relied on at all to hold the temperature at a low figure? And have not Dr. Ripley, the Doctors Jacobi, and three other physicians in New York, demonstrated that it is never useful, and often greatly objectionable—really injurious—in the treatment of pneumonia? Many lives have been lost by its use; by depending on it, in lieu of better means. A friend of mine—or rather one whose friend I was—lost his life speedily by trusting to that treatment at the time when it was in good repute.

There is one other method which should be named. It is the stimulating, stuffing treatment; as much brandy or whiskey as can be crowded into the patient. Those who die under this treatment suffer horribly from the treatment. A noble young physician, in whom I felt a deep interest, a resident of Philadelphia, was hurried to the grave a few years ago under that treatment.

There are some other means used by the opponents to blood-letting, one of which I will notice. It was a favorite treatment with Prof. William Osler, of the University of Pennsylvania, a year ago. I was informed by a second-course student that Dr. Osler considered the disease to have so strong a tendency to get well, that he thought it was often better to wait and watch its progress than to resort to active measures; and that, when treatment was needed, he did little but give aromatic spirits of ammonia, fifteen drops every two hours.

So eminent is Dr. Osler that, in venturing to speak of him,

> "I feel as one who dreads dissent,
> And fears a doubt as wrong."

But as he is a teacher of young men, who by hundreds will go forth to practice, I may call him before you again.

Let us now reflect on what has been written by those who join hands in favor of the reformed, but fatal, practice. Dr. Bartine disregards the high temperature—"keep the

thermometer in your pocket. Keep the pulse below 80." How? "By arterial sedatives; and veratrum viride has served me best." Dr. Hare, a brother in the new practice, tells him he might as well stab his patient as to give him arterial sedatives in the second and third stages.

Another brother in the faith and practice —Dr. Atkinson—told Dr. Bartine that veratria had been employed and had not proved to be useful. Aconite and digitalis, as well as veratria, are praised by some of the brethren; while others believe them to be dangerous. Quinine and stimulants have signally failed; and yet every one of the means thus condemned by the opponents to the abstraction of blood is still used by the reformers, and Death has his own way with their patients. Nor is he less victorious over those who wait for the "tendency to recovery," without raising a hand to protect the sufferer.

I care not to speak to the readers of the REPORTER of the treatment used in other countries; but of our treatment here all should know the best mode. We are all anxious to know why so many people die of a disease which was so curable forty years ago, and which Dr. Wells says is the same disease now that it was then and has been for ages, without change of type; a disease as curable as any other inflammatory disease, but in a part of the body so important in its functions that speedy and efficient treatment is required if life is to be preserved.

I regret to occupy much of the REPORTER; but, as the editor of the *Journal of the American Medical Association* allowed Dr. Wells to occupy so much space in nine of its numbers, I beg them to let me give them one more paper.

SOME UNTOWARD EFFECTS FROM ANTIFEBRIN.

BY J. B. HATTON, M. D.,
DES MOINES, IOWA,

In the REPORTER, February 22, 1890, Dr. Brodnax, in contrasting antifebrin and antipyrin uses the following words, in reference to the dose of the former: "Any little too much has no unpleasant effect." As my experience with the drug does not correspond with his, permit me to briefly describe two cases that came under my observation:

In October, 1887, I was in attendance upon a boy sixteen years old, suffering with typhoid fever. The temperature from the first few days of his attack ran unusually high; and, failing to control it with other means, I gave him four grains of antifebrin, left three more powders to be given four hours apart until the body heat was reduced, and went home—the case being six miles in the country. I had not been at home more than an hour when a messenger arrived in great haste, informing me that my patient was thought to be dying. I immediately returned to his bedside, and was met by the mother's question: "Doctor, what in the world did you give Willie that has acted so?" Upon inspection I don't think I ever saw a more typical case of alarming collapse than he presented. His extremities to his body were icy cold; his nose was cold; his breathing was shallow and at long intervals; his pulse was absent at the wrist; the heart-sounds were so feeble as to be scarcely perceptible; his lips, face, ears, neck, hands, arms, feet and legs were blue—indeed the skin surface presented a bewildering waste of blue; he could not speak, and his temperature in the rectum was 96.1°. With great difficulty I succeeded in forcing down his throat a tablespoonful of whiskey, containing ten grains of carbonate of ammonia, and gave him a hypodermic injection of whiskey and tincture of digitalis with other and repeated remedies against shock; and it was sixteen hours before he fully reacted. It was four days before the temperature reached its former height.

I was undecided as to the responsibility of the medicine for the effects through which he had passed, and concluded to administer it myself and stay with him to observe its action. I gave him a dose of three grains, and within an hour and forty minutes the same train of symptoms began to manifest themselves. I waited sufficient time to assure myself that the medicine would produce the same results, which it did; his lips and skin turning blue, and the extremities rapidly cooling. I did not, of course, wait for all the symptoms of collapse; but put him on restoratives and brought him out of it. I am fully convinced that the remedy caused the condition of collapse from which he had suffered.

The second case was a man, fifty-two years old, who was suffering with an aggravated attack of sciatica of the left sciatic nerve. After trying quinia, the iodides, colchicum and deep injections of chloroform, without permanent relief, I put him

on antifebrin, four-grain doses to be given four hours apart. Within an hour after taking the second dose he was attacked with substantially the same train of symptoms from which the boy had suffered; and it was twenty-four hours before I felt safe in leaving him. While the effects were alarming in character in this case as well as in the other, the result was much more satisfactory. The antifebrin relieved his pain permanently; or, at least, for a year he was clear of it.

In these two cases there might have been, and possibly was, an idiosyncrasy; yet they show plainly that antifebrin is not altogether harmless and devoid of danger. The remarkable increase in the consumption of this class of remedies by the laity would seem to demand all the information possible as to their deleterious effects if they possess any such. This is my reason for contributing this part of my experience in connection with antifebrin.

Reports of Clinics.

BELLEVUE HOSPITAL.

SURGICAL CLINIC.—PROF. BRYANT.

General Remarks on Operation for Bone Disease.

In connection with the cases shown to the class to-day, Dr. Bryant remarked that frequently the exact diagnosis in patients suffering from bone disease is not made until an incision had permitted inspection of the diseased structures; and that it is sometimes deemed advisable, when the case is thus thoroughly understood, not to proceed to operation. A point he wished to impress was that the exploratory incision is many times followed by amelioration of the symptoms and not productive of ill consequences; so that the surgeon should never feel forced to do a radical operation when his better judgment advises against it. He referred to the boy with Pott's disease on whom he operated last week. It was decided at the time to do nothing but freshen the edges of the sinus and put in a drainage-tube. He was pleased to report that, instead of a daily temperature of 103° and more, his fever had gradually decreased, never rising above 102°, and his temperature when last taken was 100°. His pulse showed a corresponding improvement. Altogether the little patient was much better; and yet no diseased bone had been removed. To be sure the parts had been rendered more or less aseptic and the drainage free.

Necrosis of Humerus.

The first patient brought in for operation was a lad, ten years old, with the following history. On May 1, while roller-skating, he fell upon his right side. The upper part of the arm grew swollen and painful. Fever set in. The swelling increased for several days until finally the overlying tissues thinned and pus was evacuated, leaving a sinus that continued to discharge. Last August an incision was made and a sequestrum was removed. The sinus did not heal, however, and has continued to discharge. Examination showed considerable wasting of the right arm, and on the external surface, an inch and a half below the situation of the head of the humerus, there was a depressed scar, in which was the mouth of the sinus with pouting lips. The probe showed the direction of the fistulous tract to be upward, reaching to the level of the border of the cartilage. An incision was made down upon the sinus, the periosteum was pushed aside, and the diseased bone was scraped out, carefully and gently, so as not injure the joint. It was found necessary to scoop out nearly the entire head of the humerus. Frequent irrigation was practiced.

Dr. Bryant said the wound might now be dressed in one of two ways. The first was by allowing the cavity in the bone to fill with blood and simply covering the surface with iodoform gauze and air-tight dressing in the expectation that the blood would become organized and the wound heal with but little suppuration. The danger here would be that some diseased focus in the bone might escape the operator, or that some fistulous track in the bone might retain some of the elements of inflammation, so that, however thoroughly the cavity might be washed out and disinfected these points would not permit of perfect asepsis. The second way was to allow the wound to heal from the bottom by granulation. In this case he considered the chances of getting perfect disinfection so small, and the oozing of blood was of such considerable quantity, that the first method was impracticable. Accordingly the wound was dusted with iodoform, packed with iodoform gauze; and healing by granulation was looked for.

Should the patient to-morrow or later develop fever or evidences of inflammation, it would lead to a suspicion of involvement of the joint. In that case the dressings should be removed and the wound inspected, and, if necessary, the joint opened.

This case may have been originally either a periostitis of the shaft, with the pus burrowing up into the head of the humerus, or (as he was inclined to view it) an abscess of the head of the bone. In these latter cases, as a rule, the disease advances into the joint. This patient presented an illustration of the exception. From whatever cause, the condition resulting, and its treatment, are the same. The operator should avoid injury to the cartilage or articulæ lamellæ; use no violence and scrape lightly; and use water (irrigate) freely.

Necrosis of Metacarpal Bone.

The next patient presented for operation was a man, a fireman by occupation, thirty-two years old. He gave a good family history, and had never been sick before. He had no history of syphilis. His present trouble dated from four weeks ago and then, while he was hoisting a can of ashes, the chain broke, and the can fell and struck him on the right shoulder and hand. Following this the dorsum of the hand swelled and grew painful, and after a few days was incised by the physician in attendance and gave issue to pus.

Examination by Dr. Bryant showed the depression of the scar of the incision, and a sinus located over the head of the third metacarpal bone. The probe discovered bare bone.

Dr. Bryant directed attention to four points that should interest the surgeon when using the probe in these cases: first, to determine whether dead bone was present or not; second, if so, to ascertain the extent of the necrosis; third, to find whether the sequestrum be loose, or firmly attached; and, fourth, to learn whether or not the joint was involved.

An incision was made through the sinus down upon the metacarpal bone, and the bone was exposed and found to be soft. The soft material was scraped away until a bleeding surface presented. As some small pieces of cartilage were washed away when the wound was irrigated, it was presumed the joint was involved.

The cavity was plugged with iodoform gauze, and the further antiseptic dressing applied, care being taken in applying the bandage to keep the fingers straight—a precaution that should always be employed. Otherwise a crammed and crooked condition of the fingers might result, impairing the usefulness of the hand.

Foreign Correspondence.

LETTER FROM PARIS.

Paris, February 7, 1890.

Pneumonia in Influenza.—Bacteriological Researches and Clinical Forms of Influenza.—On the Anti-bacterial Action of White of Egg.—Extirpation of an Occipital Encephalocele.—Treatment of Sprains.—Contagion of Dysentery.

At a recent meeting of the Medical Society of Paris, a very interesting discussion took place on the subject of "Pneumonia in Influenza." Dr. Duponchel thinks this affection to be of an entirely different nature from the ordinary pneumonias observed; it is preceded, according to this physician, by a premonitory state, lasting from eight to ten days; it is not ushered in by a chill; the sputa are not rusty; finally, this form of pneumonia, instead of running a fixed course, presents recurrences and finally ends with a profuse sweat and general weakness—the capsulated diplococcus has never been found in the sputa of his patients with the pneumonia of influenza.

Dr. Laveran has observed cases similar to those of Dr. Duponchel, but he has also met with real infectious cases of the disease. In five patients he observed the co-existence of purulent pneumonia and pleurisy; in another, a purulent peritonitis and pleurisy were observed, and in this patient the spleen was enormous and weighed 525 grammes (about 16 ounces). This author has never found streptococci in the blood of his patients, but he has found them in the sputa.

Drs. Chantemesse and Widal, the two well-known bacteriologists, have examined the blood of eight of their patients, during the period which followed a high temperature of 39° to 40°. The blood was obtained from the pulp of a very clean finger, and placed between glass-plates; this blood contained a great number of polynuclear leucocytes, but never have they found a para-

site, and culture plates even gave entirely negative results. These authors have observed, however, in certain cases, a peculiar fetid odor of the expectoration in cases in which influenza was complicated with bronchitis.

Drs. Vaillard and Vincent claim to have arrived at constant results, during the present epidemic of influenza, in their bacteriological researches. They have examined the viscera, the blood, the liquids of the serous cavities as a result of the evolution of broncho-pneumonia due to influenza.

They claim to have always encountered, both before and after death, the presence of one same organism, a streptococcus. This organism, in a morphological point of view, as well as by his modes of culture, has appeared identical with the one of erysipelas. In subjects who have died from influenza, one finds a streptococcus in the blood, spleen, lung or exudated liquids. Three times out of four, this microbe was absolutely alone; in one case the spleen contained the staphylococcus pryogenes. In empyema, consecutive to influenza, one finds only one kind of streptococcus. The same streptococcus is constant in sputa obtained from subjects suffering from influenza.

Dr. Netter thinks one ought not to form hasty conclusions; for this streptococcus is often found in the normal saliva; hence it is not surprising if it is met with in the sputum. This streptococcus is also not the only cause of influenza; for Dr. Netter has seen two pneumonias which presented pneumonococci; and three cases of otitis: in one with streptococci, two with pneumonococci.

Dr. Henri Huchard also gave a description of some of the clinical forms of influenza. Passing rapidly over the usual, yet most dangerous complications of this disease: bronchitis, broncho-pneumonia, catarrhal pneumonia, he said that there exist two principal forms of pulmonary congestion, the active form of congestion and the passive form of the disease. This last form, the passive or atelectitic form of the disease, continues for several weeks. It is more often bilateral, and situated at the base of the lung; the physical signs are fine crepitant râles, very numerous, especially on deep inspiration. Much more severe complications may arise if the patient exposes himself to cold. This congestive state is due to a pulmonary weakness, a lessening of bronchial contractility and loss of elasticity of the pulmonary vesicles. In certain cases of pneumonia we find symptoms, as if the pneumogastric nerve had been cut. Cardiac influenza presents itself with fainting, syncope, slowing of the pulse, intermittent character of the same, even forms resembling angina pectoris and cardiac collapse. An interesting symptom has been observed by Huchard: when the patient changes his position from the horizontal posture to the vertical, the pulse becomes accelerated and will rise from 80 to 120, or even 130, beats per minute. As soon as the patient lies down again, the normal ratio is resumed. This is a certain sign of cardiac debility and weakness of the arterial pressure. From a therapeutic point of view this indicates that the heart is to be strengthened with appropriate remedies, and the much enfeebled arterial pressure is to be increased.

These cardiac troubles may be due to two different causes: either to an influenza myocarditis, or to disturbance of the cardiac innervation. Dr .Huchard does not deny the existence of myocarditis; as influenza presents itself in certain cases as an infectious disease; but that accidents are observed, indicating a paretic state of the pneumogastric, as shown by the pulmonary congestion and slowness of the pulse.

Finally Dr. Huchard mentioned gastro-intestinal influenza, which in some cases is of an infectious character. In such cases, the tongue remains for several weeks and months covered with a thick coating, there is complete loss of appetite, the liver and spleen become very large, the urine is scanty and sometimes contains albumin, the feces are very fetid, and the patient feels very weak. In such an infectious state, the heart must be strongly supported; and the normal excretory organs must be kept active to prevent secondary poisoning. In such cases, convalescence is very much protracted and an examination of the urine shows a great diminution of the phosphates and phosphoric acid.

Before the Biological Society, Dr. R. Wurtz read a very interesting article on the "Anti-bacterial Action of White of Egg." To demonstrate this interesting fact, very small quantities of pure cultures of different micro-organisms were placed in white of egg; these tubes were then placed in a culture oven at a temperature of 38° Cent., and kept there a certain definite number of hours; to each tube is then added ten times the volume of nutritive gelatine, and with this mixture plates are prepared. At the

same time a control plate is prepared from a tube of nutritive gelatine, on which the same quantity of culture has been placed, and on which one counts the number of colonies which have developed. Dr. Wurtz has experimented on the bacillus anthrasis, the cholera spirillæ, Eberth bacillus, the pyocymic bacillus, the microbe of chicken cholera, the staphylococcus pyogene aurens and the bacillus rubtilis. The bacillus anthrasis, either in filament or bacillary form or in spores, is destroyed in one hour, in white of egg at 28° C. On the other microbes above named, the action, if not so pronounced, is almost as clear. The number of colonies diminish hourly, according to the length of time during which the micro-organisms remain in contact with the albumin. At the end of six hours there are very few colonies on the plaques prepared with albumin, while the control plate is covered with micro-organisms. It will be interesting to note, that in this liquid there are no foreign bodies, such as remains from leucocytes and red blood corpuscles; the white of egg is a perfectly amorphous liquid, containing no foreign element; hence, to explain its actions on bacteria, the intervention of histological elements or the phagacyte action are to be entirely discarded; its action belongs to physico-chemical activities.

This property of resistance of the white of egg to bacterial action, probably plays a certain rôle in the preservation of the bird's egg and perhaps, also, of the batrachian and certain fish-egg.

Dr. Paul Reclus recommends the following treatment against sprains, and has found it very successful both in his hospital and private practice. As soon as a patient comes, suffering from a sprain, and his local condition has been recognized, he is ordered a very hot local bath, as hot as he can bear it, to be continued for ten to fifteen minutes; then massage is to be resorted to for the same length of time; finally an elastic bandage is to be applied, beginning at the extreme part of the toes. The bandage must not be applied too tight; just tight enough to hold in position. The massage must be done in one direction only, all the movements must tend to break up the clots that might have formed, and to diffuse the exudated liquid as much as possible towards the cellular tissue of the lower part of the leg. This must be done all over, twice a day, every twelve hours, morning and evening; and the author claims that in ten days most of the sprains can be cured, and the patient able to walk about.

Dr. G. Lemoine, of the Military School of Lyons, has written an interesting work on the contagion of dysentery. His conclusions are that dysentery is propagated by the rectal evacuations, directly or indirectly, by impregnating the air, food and water used by man. The direct transmission of dysentery takes place through the medium of water-closets or any vessel that has previously received specific dejections, particles of which, having remained adherent to the vessel, come in contact with the lower extremity of the rectum and anal region of man.

PERISCOPE.

A Test for Albumin in Urine.

In the *Johns Hopkins Hospital Bulletin*, Feb., 1890, D. Meredith Reese calls attention to an editorial note in the *British Medical Journal*, Nov. 16, 1889, in which a new test for albumin in urine was given. Trichloracetic acid CCl_3COOH, a substitution product of acetic acid, formed from acetic acid by the replacement of three of its hydrogen atoms by three chlorine atoms occurs as a crystalline salt, and is colorless and readily soluble in water. Boymond claims to have been the first to make mention of the reagent, and since this it has been adopted by Raabe. Boymond begins his article by saying that Marsalt and Languipin have described albuminous urine in which a precipitate by heat was gotten, but in which urine the precipitate was re-dissolved by acetic acid. Patein, in a note quite recently made, attributes this fact to the presence of a special albumin differing from serum albumin and globulin. Boymond has observed this phenomena repeatedly, and considers that the condition is much less rare than supposed, and that the peculiarity has much import; for in a rapid examination of urine where heat and acetic acid are used alone, we might perhaps conclude that albumin was absent, when the urine might contain considerable proportion of this special variety of albumin. He has been accustomed for some time to employ trichloracetic acid instead of acetic acid. Other agents which precipitate albumin also precipitate this variety, but trichloracetic acid presents some advantages, and particularly that of

not changing the albumin. The reagent precipitates albumin in cold solution, and is considered to rank among the most delicate tests. Raabe, in the article referred to above, considers it extremely sensitive, superior to HNO_3 and to metaphosphoric acid, advocated by Hindenlang. Raabe gives the relative amounts of albumin recognized by metaphosphoric acid, nitric acid and trichloracetic acid as in the proportion 1 : 3.7 : 6.2. He also states that .0295 grm. of albumin can be recognized in 250 cc. of urine.

It may be employed as a solid or a liquid. When used as a solid a crystal of the salt is dropped into the urine in a test-tube, and touching the bottom is dissolved, producing a diffuse turbidity or turbid zone definitely marked out. When used in liquid form, the solution may be saturated or of medium strength. The saturated solution is used after the method employed with HNO_3 in Heller's test, by floating the urine on the acid. A characteristic ring will be formed, as one finds with the HNO_3 test, but without the production of the colored zone between the urine and acid caused by the oxidation of the pigments. When urine is rich in urates of soda error will be avoided, an error common to all reagents, by diluting the urine with the addition of distilled water. Boymond closes his paper by saying that he confirms the observations of Marsalt and Languipin, and that he wishes to draw attention again to trichloracetic acid as a useful test in not only this particular variety of albumin, but in the ordinary forms.

In the last few months this reagent has been tried in the clinical laboratory of the Johns Hopkins Hospital. The article was obtained from Merck and found to be, as Boymond describes, a crystalline salt, colorless and deliquescent. In all the tests a saturated solution was used, making a liquid of the consistency of HNO_3. This was kept well stoppered to keep it of uniform strength in the experiments. It was employed as above described by pouring the acid beneath the urine by means of a pipette.

In all, eighty-seven different urines have been tested, the urine filtered, and that from women drawn by catheter. At first only those urines, showing albumin by control tests such as heat, HNO_3 and picric acid, were used, and in all cases trichloracetic acid gave a distinct, clearly defined zone, produced immediately, with no discoloration whatever between the urine and acid. Generally the zone was produced more quickly than with nitric acid and was of a greater thickness and intensity. On standing for some time a slight pinkish discoloration may in some cases be obtained below the urine in the acid when trichloracetic acid is used.

In forty-three cases where the control tests gave albumin a precipitate was obtained by trichloracetic acid, not dissolved, but made more distinct by heat. In twenty-five cases no reaction whatever was obtained by any test. In fourteen cases where there was no reaction by control tests, the trichloracetic acid gave a precipitate. In eleven of these cases granular, epithelial and hyaline casts were found, and in three of these eleven cases the *post-mortem* showed distinct changes in the kidneys. In three cases where heat and acetic acid and nitric acid gave no precipitate of albumin, a precipitate was obtained by picric and trichloracetic acids. In all three of these cases casts were found. In two cases where the precipitate on heat was dissolved again by acetic acid, trichloracetic acid gave a good precipitate. In conclusion it may be said that trichloracetic acid has proven a most delicate test for albumin in urine; that it is prompt in its reaction; that it gives no discoloration or colored zone; that it is a test easily applied and one worthy of more extended use.

Influence of Cold in Pneumonic Infection.

Dr. G. Lipari, of Palermo, in his recent experiments on the infectious nature of fibrinous pneumonia, essentially confirms what is known of Fraenkel's pneumonococcus, and has also succeeded in proving the influence of cold as a factor in the origin of fibrinous pneumonia. The endo-tracheal injection of pneumonic sputa or pleuritic exudation of animals which had died from pneumonococci gave a negative result, but when the author, before or after the endo-tracheal injection, exposed the animals to cold, the result was very different. Of eight animals so treated six died with clearly established pneumonic infiltration. The author supposes that the cold paralyzes the ciliated epithelium of the bronchi, and at the same time causes their mucous membrane to swell, both of which pathological processes

favor the descent of the infectious material into the alveoli. These experiments were doubtless undertaken with a view to harmonize the old and new teaching upon the origin of this prevalent disease.—*Lancet*, February 22, 1890.

Treatment of Keloid.

Dr. George T. Welch, of Passaic, N. J., reports, in the *New York Medical Record*, Feb. 15, 1890, an interesting case of keloid treated by painting with collodion and iodine, and resulting in cure.

Keloid, he says, is seldom, if ever, regarded as curable, most authors relegating it to the limbo of opprobrium medicinæ at once, though Dumreicher is said to have succeeded in removing one from the lip by the application of acetate of lead and alum in the form of an ointment. Its proneness to recur after excision is the more remarkable, as it is regarded as a hypertrophic growth of the fibrous tissue of the surface, and seated in the corium itself—a part easily accessible, and to be removed without difficulty. But after the excision of a true keloid it would seem that the traumatic variety is developed in the cicatrix, a tendency to the disease being now hereditary in the surrounding cellular tissue. Even in such cases Dr. Welch is inclined to believe that persistent applications of collodion and iodine under proper methods, if persevered in for several months, might effect a cure.

In the spring of 1888, J. B., a thriving Swede, interested in oyster-planting in Raritan Bay, consulted Dr. Welch in reference to a keloid on the back of one of his hands, which he had recently injured while assisting a workman in dredging. The keloid was angry in appearance, and very painful. The patient was anxious to have it removed, but, being a sensible man, after hearing the result of the use of the knife, he agreed to continue, for an indefinite time, such remedies as I might prescribe.

After multiple linear scarification, as advised by Vidal, from which plentifully exuded big drops of black-looking blood, the surface was dried and then painted with collodion. The collodion was now continued for fourteen days, when it was allowed to scale off. The keloid was somewhat contracted and depressed, but a fantastic crop of coral granulations sprang up in all directions, and, as it were, in a night, some of them interlacing, and all attended with an intolerable itching. Scarification was again practiced, but the collodion was enforced with tincture of iodine:

℞ Tr. iodinii . . . . . f℥ij
Collodii . . . . . f℥vi
M.

This was applied freely, and the parts were painted over daily for a fortnight, when the continued cracking of this varnish would cause slight bleeding, and it was then permitted to scale off. Scarification would again be performed, the collodion and iodine reapplied, and the above process continued as before. Many times the cicatricial granulations would reappear, and sometimes the keloid would spread out sideways in a new direction, but, upon the whole, an encouraging progress was at length manifested. The centre of the affected part became mobile, and of a natural color, and finally the margin was cured in spots, and the dimensions of the whole decreased from a diameter of three inches to a semi-lunar elevation next the fingers of two inches in length. The treatment, without variation, for this went on until, after about eighteen months from the beginning of the process, the disease had entirely disappeared, and the skin, slightly purplish in appearance, was flexible and healthy, and this without internal medication.

Hypnotism and Clairvoyance.

Professor William James, of Harvard, in his article on hypnotism, in the current number of *Scribner's Monthly*, says: "I know a non-hysterical woman who, in her trances, knows facts which altogether transcend her possible normal consciousness, facts about the lives of people whom she never saw or heard of before. I am well aware of all the liabilities to which this statement exposes me, and I make it deliberately, having practically no doubt whatever of its truth. My own impression is that the trance condition is an immensely complex and fluctuating thing, into the understanding of which we have hardly begun to penetrate, and concerning which any very sweeping generalization is sure to be premature. A comparative study of trances and subconscious states is meanwhile of the most urgent importance for the comprehension of our nature."

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CHARLES W. DULLES, M.D.,
EDITOR AND PUBLISHER.

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NEVER ROLL A MANUSCRIPT! Try to get an envelope or wrapper which will fit it.
When it is desired to call our attention to something in a newspaper, mark the passage boldly with a colored pencil, and write on the wrapper "Marked copy." Unless this is done, newspapers are not looked at.
The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

TREATMENT OF TYPHOID FEVER WITH COLD BATHS.

There have been several discussions recently in the medical societies of New York on the treatment of typhoid fever; and at a recent meeting of the Section on Practice of the Academy of Medicine, Dr. Simon Baruch read a paper on this subject, which was intended as a sort of review of these discussions, and which contained an earnest appeal for the general adoption of the cold-bath treatment used and recommended by Brand. That there is urgent need for some change from the methods most in use Dr. Baruch thinks will be clear when we reflect that the death-rate from typhoid fever in American cities is still from twenty-five to forty per cent., according to the latest reports. This contrasts very unfavorably with the figures which the Brand method gives in Germany. The marvelous success of Brand, who lost only one out of three hundred and forty-two cases, was due, he said, to the strictest attention to detail and the subjection of every case that showed the slightest suspicion of typhoid symptoms to the bath treatment. Dr. Baruch believes that a mild bath treatment is advantageous in any febrile attack in which the temperature reaches 103°, and that, if it proves to be typhoid, valuable time will have been gained. The notion of the fatal influence of high temperature, he says, is happily losing its hold on the profession, and he regards it as very unfortunate that the cold bath should have been classed—under the teachings of Liebermeister and others—among antipyretic measures. Whenever the profession gives up this fallacious idea, he thinks that the cold-bath treatment will replace the unsuccessful antipyretic treatment entirely.

Thus in the Fourth Congress for Internal Medicine (in 1885) eminent clinicians expressed almost unanimously the opinion, that, until we obtain a specific curative agent for typhoid fever such therapeusis is to be preferred which is capable of diminishing or removing the effects of the morbific agents; that this aim is most surely fulfilled by hydrotherapy; and that medicinal antipyretics act only against temperature elevation, but do not, like the bath, produce a modifying effect upon the fever process.

Dr. Baruch criticised the speakers in the recent discussion who advocated intestinal antisepsis in typhoid, and said that in the light of the experiments of Stieff, in Gerhardt's clinic, the attempt to free the intestinal canal from putrefactive agents seemed to be Quixotic. Putrefaction is due to the presence of decomposing tissue elements and secretions from intestinal ulcerations; and if we could prevent or limit the latter we would remove the cause. It can no longer be doubted that this may be done if we credit Vogt's testimony to the great diminution of diarrhœa and meteorism by the bath treatment. The cold bath, which reduces

the temperature, strengthens the heart, deepens the respiration, improves the digestion, increases diuresis and perspiration, and which brightens and refreshes the patient, must prevent the tendency to accumulation of effete materials in the system. Another point brought out by one of the speakers was the value of solid food in the third week of typhoid, and Dr. Baruch thought it was not simply a coincidence that the advocate of feeding (Dr. Peabody) was also the only advocate of systematic bathing who appeared in the discussion. Tripier and Bouveret, he said, dwelt upon the remarkable appetite and digestive power of patients who were systematically bathed; and Dr. Austin Flint, who introduced systematic bathing into his wards at Bellevue Hospital last spring, had told him that the appetite of his patients was difficult to appease.

Dr. Baruch then went on to say: The most important question in the recent discussion is, "What constitutes the cold bath treatment?" The statistics referred to, showing a reduction of mortality to less than three per cent., and in twelve hundred cases treated before the fifth day, to less than one per cent., were not obtained by cold sponging, wet packs, cold coils, cold effusions, graduated baths, or any other agreeable substitute; they were the result of methodical bathing, according to Brand's original method.

As there seems to be much vagueness of conception on this point, Dr. Baruch deemed it important to furnish an outline of the method, as he had learned it from the study of Brand, Vogt, Tripier, and Bouveret, and correspondence with Brand himself.

1. The first principle is to bathe early; even before the diagnosis is clear. No harm is done, at least by a graduated bath, viz., reduced from 90° to 68°, for a quarter of an hour. This is the only modification of the method which is advisable. It accustoms the patient to the treatment and gains time. It should be resorted to as soon as the temperature *in recto* reaches 103°. Dr. Baruch bathes the patient's face and chest with ice-water before placing him into any bath.

2. As soon as the case becomes defined or even suspicious, the strict bath—65° F.—should be used. The tub must stand at the patient's bedside filled two-thirds with water at 65°. The patient receives a stimulant, and has his face and chest washed with ice-water. He is undressed and gently lifted into the water. A gasp and a shudder follow—perhaps an ejaculation of distress. But gentle reassurance, by word and deed, a calm demeanor devoid of haste or flurry, and an avoidance of force will do much to quiet the patient. With one hand under his head, if necessary, the other is used to gently practice friction on the submerged parts. A second nurse pursues the same course, if possible. This important feature of the Brand method is frequently neglected, and to its neglect may be charged the recurrence of collapse, cyanosis and chill. Gentle friction with the outstretched hand produces a rosy hue of the skin and the superficial vessels are dilated. By thus exposing a larger supply of blood, the cooling is more rapid. The bath should continue in this manner for fifteen minutes, no matter how urgently the patient desires to be removed. A pinched countenance, chattering of the teeth, unless excessive, or a small pulse, must not be taken as indications for removal; but if the face becomes cyanotic or the respiration embarrassed, the bath must cease. Every five minutes during the bath, water at about 60° should be gently poured from a pitcher on the head of the patient, after a folded handkerchief has been tied around it like a bandage, with the knot over the nucha. This prevents the water from running over the face and spreads it over the head. Before the patient is removed from the bath a linen sheet should be spread on a blanket to receive him. If his temperature has been high, this sheet alone is wrapped around him, while his lower extremities are covered with the blanket also. If his temperature has not been over 103.5° the whole body may

be wrapped in the blanket over the sheet, and hot bottles placed to the feet. He is then left to dry for ten or fifteen minutes; something hot is now given him; his night-gown is replaced, and his temperature is taken. This process is repeated every three hours, so long as the temperature reaches 103°, night and day, unless the patient is asleep naturally. Stupor, coma or delirium are all indications for the bath, even if the temperature is below 103°. In these cases placing the body semi-recumbent with a half-bath at 95°, and pouring small basinfuls of water at 60° to 65° over the head and shoulders is a more valuable procedure than the complete bath.

The Brand bath is not a nervous sedative, as has been claimed in a recent paper before the State Society, but a refreshing measure, by which the depressing effect of the typhoid poison is to be counteracted. The system is tottering under the enfeeblement of all its functions from the effects of the infection upon the nervous system. The impact of cold water upon the periphery deepens inspiration, more oxygen is inhaled, more carbonic oxide is given off; the refreshing impulse is conveyed to the nerve centres from which the heart and stomach receive tone and the secretions activity.

From this description it can readily be seen that, however beneficial the Brand method may be in its effects, it is most exacting in its requirements; and unless these can be fully met it would seem to be better not to attempt to practice it at all. Few of our best appointed hospitals have a sufficient corps of nurses to care for many typhoid patients in accordance with the demands of this treatment, and but few private families can afford the expense of, or have accommodations for, four nurses—the number which is required for the day and night service. More than this, it will probably be noted that the excellent showing of results claimed for Brand's method may in part depend upon the fact that, as it is taught that it must be instituted before the diagnosis is certain, it is quite possible that the statistics include cases which were not of typhoid fever at all and which would, of course, improve the showing for recovery.

With these reserves, we present to the readers of the REPORTER the views of Brand, so warmly and so ably advocated by Dr. Baruch.

INVITATION FOR PHYSICIANS TO ADVERTISE.

The *Arena*, of Boston, may be an admirable magazine, and if on better acquaintance we should find it so we would be pleased to announce the fact to the readers of the REPORTER. But the *Arena* does not commend itself especially to our favor when it sends to the Editor of the REPORTER a circular, intimating that he is regarded as one of the "leading physicians" in the United States, and inviting him to pay a modest sum of money for having his name printed as such in the *Arena*.

The invitation is baited with the statement that the publication of the names of "leading physicians" is intended for the benefit of the readers of the *Arena*, and an intimation that this is a mode of advertising "without breaking the code that hedges in the medical profession" which would be both cheap and effective. How hard it is to resist the temptation to buy a place in this galaxy may be judged by the thousands who have doubtless received an invitation to enter it, each one of whom is assured that the publishers "want none but the cream of the profession and only one from each point indicated."

The *Arena* may be, as its publishers claim, the "leader in the field of impartial discussion of all the questions, great and small, that present themselves before the public gaze." It certainly has reason for recognizing its ability to take up a very small one. But we doubt if many medical men will follow it, and feel sure that those who do will not be men of very large personal or professional caliber.

As for the poor readers of the *Arena*, we trust they will find out how the publishers have attempted to skim the "cream" off of the profession for them and judge for themselves what quality can be expected from such a process.

THE STATUS OF MEDICAL EXPERTS.

One of the greatest obstacles to securing for physicians, who testify as experts in Court, the consideration which experts should receive, is the fact that their testimony is sometimes calculated to diminish rather than to increase the confidence and respect of those before whom they testify. It is notorious that absolutely contradictory expert testimony is sometimes given in a single case, and that the history of the Courts furnishes too often the spectacle of so-called experts whom it seems safe to employ in the defence of almost any murderer; while, on the other hand, there are to be found men who seem too ready to give positive opinions on scientific points by no means clearly established, when the fate of a fellow-being hangs upon their words.

In like manner medical men are sometimes found, speaking as scientific men before deliberative or administrative bodies, who appreciate so imperfectly their responsibilities that they make assertions, the correction of which, while injuring their own reputation for reliability, has also the effect of shaking the confidence of those who listen in expert testimony in general.

Not long ago, in Philadelphia, a rich corporation, with designs on the city's treasury, secured the services of a widely known chemist, to demonstrate that the Schuylkill River furnished to the inhabitants of this city water unfit to drink and dangerous to health. It was soon shown, however, that the published analyses of this very chemist demonstrated the very opposite of what he had said, and that there was no evidence accessible to support his sweeping assertions; and not only this chemist, but chemists in general, fell in the estimation of the community. Very recently a certain microscopist of this city appeared before a Committee of Councils of Philadelphia, and made a long address on the same theme, dwelling especially upon the assertion that Philadelphia has more typhoid fever than any other large city in the United States, and intimating that this was due to the use of Schuylkill water. On being questioned in regard to the parts of the city in which the typhoid most prevailed, he said that this had been fully discussed in the medical societies of which he was a member, and that it was always found that typhoid fever was excessive "where the water was worst." This evasive statement seemed plainly intended to convey the idea that typhoid fever was especially prevalent where the Schuylkill water—which he had been arguing against—was used; and it became necessary for another medical man, who was present, and who was a member of the same medical societies, to state that at these societies it had been demonstrated that typhoid fever was most frequent in Philadelphia precisely where the water of the Schuylkill was *not* used!

Here was a case in which the listeners might have supposed that the first speaker was either ill-informed or not quite candid; and—even if this inference were erroneous—the effect on their minds could hardly fail to lead them to accord less respectful attention hereafter to medical men who appear before them in the capacity of experts.

We share the desire of our brethren in the medical profession that they should be treated with due consideration when they speak on subjects about which they ought to know more than their hearers; but we feel sure that the best way to secure such treatment is to do what they can to avoid themselves, and to discountenance in others, actions and words which are open to the objection that they indicate ignorance or insincerity on the part of so-called experts. Men who err in this do themselves harm—which is, perhaps, their own affair; but

they also injure the profession—which is its affair.

ARTESIAN WATER AT MEMPHIS.

The *Bulletin* of the Tennessee State Board of Health, February 20, 1890, contains a very interesting account of the system of water-supply at Memphis, which is now as fine as any city could have. This account would interest any one who cares to know the principles and methods of artesian water-supply, and would prove instructive to any who are not familiar with the subject.

So far as Memphis is concerned, it is gratifying to learn that the supply of artesian water at Memphis is practically inexhaustible. Such is the capacity of the water-bearing sand, and so enormous its area for gathering its store, that it is thought that Memphis, in using profusely all she may need for years to come, cannot make an impression on the sea of supply below. It is assured that there is no possibility of an admixture of the river or surface waters about Memphis, or of sewage fluids, with the waters of the artesian wells. The upward pressure from the wells, to a point even above high water of the Mississippi, gives this assurance.

The quality of the water for all city purposes has proved highly satisfactory. Its source is from a region boasting of its water, and from that it percolates through miles of sand, coming out transparent and sparkling, unaffected by washing rains or turbid streams. Its introduction was an epoch and a blessing to all concerned. Finally, the system for gathering and controlling the self-flowing water, and for sending it through the iron arteries of the city, is not only unique, but admirable in conception and execution.

While congratulating the inhabitants of Memphis upon securing so magnificent a supply of water for drinking and domestic uses, it is pleasant to know that artesian well-water is within easy reach of many other cities in our country, especially in the great Valley of the Mississippi.

BOOK REVIEWS.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the REPORTER.]

PROCEEDINGS OF THE PHILADELPHIA COUNTY MEDICAL SOCIETY. Volume X. Session of 1889. 8vo, pp. xvii, 410.

This volume contains the papers read before the Philadelphia County Medical Society between January 9 and October 23, 1889. Sixty-eight papers were read, and while there is of necessity great difference in their relative merit, they are all creditable to the Society. The discussions, as usual, have been earnest, and they add much to the value of the proceedings. Among a number of papers deserving special mention is Dr. Guss's paper on the The Mortuary Statistics of Philadelphia; Dr. Keen's papers on Tapping and Irrigation of the Lateral Ventricles: Robert Abbe's on Intestinal Anastomosis; and Frederick P. Henry's on The Diagnosis and Treatment of Functional Disorders of the Stomach, which should be read in connection with the paper of Dr. Wolff, on The Chemistry of Gastric Digestion. The book is well printed and bound, and presents a handsome appearance altogether.

A COMPEND OF HUMAN PHYSIOLOGY. Especially adapted for the use of Medical Students. By ALBERT P. BRUBAKER, A. M., M. D., Demonstrator of Physiology in the Jefferson Medical College, etc. Fifth Edition, Revised and Enlarged. With new Illustrations and a Table of Physiological Constants. 8vo, pp. 188. Philadelphia: P. Blakiston, Son & Co. 1889. Price, $1.00.

It is scarcely necessary to review at length Dr. Brubaker's well-known compend. It has been in use by students for some years, and the fact that it has already reached a fifth edition indicates the esteem in which it is held. In the present edition the author has revised and rewritten a number of sections, but the principal additions are in the parts treating of the nervous system. The subject-matter of the book is well divided and subdivided, and the arrangement throughout is good. The only criticism at all unfavorable, which might be made, as regards the appearance of the book, is that the combination of ink and paper is trying to the eye-sight. But we should not expect everything in a compend.

RAMBLES OF A PHYSICIAN; OR, A MIDSUMMER DREAM. By a Graduate of the University of Pennsylvania. 2 vols. 8vo. Illustrated. Philadelphia: Dunlap & Clarke, Printers.

The author of this book employed the opportunities of a tour in Europe to write an account of his travels, which is full of interesting experiences and observations. He had an eye for all that was beautiful, and another to mark many a defect in European cities. He seems to have had a peculiar sympathy for the charms of German life and German idealism, and gives many a quotation from the poets and other writers of this land. He did not miss his chance to fight a duel in Berlin; where—as an American should—he got the better of his German antagonist. His book contains many allusions to matters of historical interest, and impressions made by the various works of art that he saw; and gives a faithful representation of the feelings natural to one traveling, as he did, in a rambling way over the most interesting parts of Europe.

Literary Notes.

—The first number of the *Literary Digest* was issued March 1, 1890, and is an interesting and instructive number. It gives promise of carrying out very well the purpose indicated in the prospectus of presenting carefully prepared condensations of important articles in the periodical literature of the world, with comments on current events, book digests and criticisms, indices of current literature and a chronicle of public events.

The *Digest* is to be issued weekly, by Funk & Wagnalls, New York, and the subscription price is $3.00 a year.

New Remedies and Appliances

In this department, notice will be given of Remedies, Food Articles, and Instruments or Surgical Appliances of which specimens are sent to the Editor; it will bear the same relation to these articles that the department of Book Reviews now does to books.

Clam-Juice Food.

E. S. Burnham, of New York, sends a specimen of "Clam Bouillon," which is recommended as a useful article of food for patients with weak stomachs. It is certainly palatable and ought to be nutritious. It has one very distinct merit, namely, that it does not have the character of "sick-room victuals," and can be used with satisfaction in the kitchen for well people.

Correspondence.

Insanity and Obstruction of Bowels.

To the Editor.

Sir: In the Periscope of the Reporter for March 1, is an article on Insanity proceeding from the Colon. Allow me to contribute my moiety to further what is there recorded. Some eight years ago I was called to examine a man, in order to give a certificate of insanity. During the examination (and after I was convinced that he was undoubtedly insane) it occurred to me to inquire after the condition of his bowels. They had not been moved for over a week, so I persuaded him to try an immense dose of calomel followed by aloes and podophyllin pills. Not expecting any special effect upon the mental condition, I returned home, and prepared certificate of insanity. But the man never needed it. On the following day, a vast amount of material was discharged from his bowels and his mind cleared up, and he has remained sane ever since.

A young woman has been under my care three different times for insanity. The last attack was about two years ago. She had been constipated for quite a long time, was an enormous eater and had gained flesh rapidly. Finally, her mind failed. Her bowels were completely moved by means of injections and cathartics, and her friends stated that some of the material passed had been eaten over six weeks before. On all three of her attacks a free evacuation of the colon was followed by immediate improvement of her mind; although her general system remained affected for quite awhile afterwards. She now watches the condition of her bowels, cuts down her food and is perfectly well.

Yours truly,

James Bates, M. D.

Alliance, O.

Notes and Comments.

Invitation to the International Medico-Scientific Exhibition.

In connection with the Tenth International Medical Congress, to be held in Berlin, August 4–9, 1890, there will be an International Medico-Scientific Exhibition. The Committee of Organization have been authorized by the representatives of the medical Faculties and the leading medical Societies of the German Empire to make the preliminary arrangements. It therefore cordially invites all who may wish to exhibit or participate in the above Exhibition. All exhibits must be of a scientific nature.

The exhibits expected will be as follows:

1. New or improved scientific instruments for biological or special medical purposes, including apparatus for photography and spectral analysis pertaining to medicine.
2. New pharmacological chemical substances and preparations.
3. New pharmaceutical substances and preparations.
4. New food preparations.
5. New or improved instruments for internal and external medicine, and allied specialties including electrotherapy.
6. Plans and models (new) of hospitals; houses for reconvalescents, disinfection and general bath-houses.
7. New appliances, such as pertain to nursing the sick, including the methods of transportation, and baths for the sick.

8. Apparatus (new) for hygienic purposes.

The Special Committee on Exhibition consists of the following gentlemen: Commerzienrath Paul Dörffel, H. Haensch, Director Dr. J. F. Holtz, Director Dr. L. Loewenherz, Regierungsrath Dr. J. Petri, H. Windler, and the Secretary-General of the Committee of Organization. The names of the Associate Members of the Exhibition Committee, as well as the names of the Heads of Departments, will be made known shortly, also the conditions for Exhibitors.

For applications for exhibits, and information, address Dr. O. Lassar, Secretary-General, Bureau of the Tenth International Medical Congress, Berlin, N. W., Carlstrasse No. 19.

All mail matter relating to the Exhibition should be marked "Exhibition Affairs," and should enclose a visiting card or card of the firm, on which the name and residence is plainly written or printed.

Meetings of State Medical Societies in 1890.

The following is a list of State Medical Society meetings in 1890.

Alabama, Birmingham, April 8, T. A. Means, Secretary, Montgomery.

Arkansas, Little Rock, May 14, L. P. Gibson, Secretary, Little Rock.

California, Los Angeles, April 15, W. W. Kerr, Secretary, San Francisco.

Colorado, Denver, June 17, H. W. McLauthlin, Secretary, Denver.

Connecticut, New Haven, May 28, N. E. Wordin, Secretary, Bridgeport.

Dakota, Sioux Falls, June 12, R. C. Warne, Secretary, Mitchell.

Delaware, Wilmington, June 10, J. A. Ellegood, Secretary, Laurel.

Florida, Ocala, April 8, J. D. Fernandez, Secretary *pro tem.*, Jacksonville.

Georgia, Brunswick, April 16, King P. Moore, Secretary, Macon.

Illinois, Chicago, May 6, D. W. Graham, Secretary, Chicago.

Indiana, Indianapolis, May 14, E. S. Elder, Secretary, Indianapolis.

Iowa, Des Moines, April 16, C. F. Darnell, Secretary, West Union.

Kansas, Salina, May 13, J. E. Minney, Secretary, Topeka.

Kentucky, Henderson, May 14, Steele Bailey, Secretary, Stanford.

Louisiana, Baton Rouge, May 13, P. B. McCutchon, Secretary, New Orleans.

Maine, Portland, June 10, C. D. Smith, Secretary, Portland.

Maryland, Baltimore, April 22, G. A. Taneyhill, Secretary, Baltimore.

Massachusetts, Boston, June 10, F. W. Goss, Secretary, Boston.

Michigan, Grand Rapids, May 20, Geo. Duffield, Secretary, Detroit.

Minnesota, St. Paul, June 19, C. B. Witherle, Secretary, St. Paul.

Mississippi, Jackson, April 21, W. E. Todd, Secretary, Jackson.

Missouri, Excelsior Springs, May 6, J. C. Mulhall, Secretary, St. Louis.

Nebraska, Beatrice, May 13, M. L. Hildreth, Secretary, Lyons.

New Hampshire, Concord, June 16, G. P. Conn, Secretary, Concord.

New Jersey, Schooley's Mountain, June 10, W. Pierson, Secretary, Orange.

New York, New York, October 22, E. D. Ferguson, Secretary, Troy.

North Carolina, Oxford, May 27, J. M. Hays, Secretary, Oxford.

Ohio, Columbus, June 3, G. A. Collamore, Secretary, Toledo.

Pennsylvania, Pittsburgh, June 10, W. B. Atkinson, Secretary, Philadelphia.

Rhode Island, Providence, June 12, W. R. White, Secretary, Providence.

South Carolina, Laurens, April, W. P. Porcher, Secretary, Charleston.

Tennessee, Memphis, April 8, D. E. Nelson, Secretary, Chattanooga.

Texas, Fort Worth, April 22, F. E. Daniel, Secretary, Austin.

Vermont, Rutland, June 26, Montpelier, October 9, D. C. Hawley, Secretary, Burlington.

Virginia, Rockbridge Alum Springs, August or September, L. B. Edwards, Secretary, Richmond.

Washington, Spokane Falls, May 14, C. L. Flannigan, Secretary, Olympia.

West Virginia, Wheeling, J. L. Fullerton, Secretary, Charlestown.

Wisconsin, Milwaukee, June 4, J. R. McDill, Secretary, Milwaukee.

Fracture of the Femur in Children.

Dr. J. Howe Adams, in the report of a case of fracture of the femur in a child, in the *University Medical Magazine*, February, 1890, says that simple fractures of the femur

have been regarded by many surgeons as exhibiting the points most characteristic of complete fracture in children. These points are: First, the frequency with which fractures in children are complicated with rickets as a predisposing cause; the transverse direction of the fracture; the slight displacement which may be entirely lacking; the adaptability of apparatus for correction without extension; and the frequency of union without shortening. The periosteum, being thicker and stronger in childhood, is supposed to be accountable for the lack of displacement, resisting successfully outside forces. In rachitis, however, the periosteum is thickened and softened, invalidating the theory in such cases as this; here, probably, the square ends of the bones jutted against each other, overcoming weakened muscular resistance.

Fractures of the femur in children are more common than is generally supposed; all authorities agreeing that the report of M. Coulon is a just estimate. This observer noted at the Hôpital Ste. Eugénie, in one year, 140 fractures in children; 38 of these were of the forearm, and 26 were of the femur; the number of femoral fractures standing second in the order of frequency.

There are many methods of treatment proposed for these fractures in children. Paget, at the St. Bartholomew Hospital, put into practice the idea of using no dressing at all, believing that the restlessness of the little patient prevented the use of extension, and the soiling of immovable dressings by urine and feces made practical difficulties too great to be overcome. This eminent surgeon used no splints, simply "the child being laid on a firm bed, with little or no head-pillow, with the broken limb after setting, is bent at the hip and knee, and laid on its outer side." Mr. Bryant suggests that the fractured and sound limbs be flexed at right angles to the body, fixed with a light splint, and hoisted upward to some support above. Here the weight of the child furnishes a counter-extending force, cleanliness can be insured and a good result expected. Dr. Hamilton advised two long splints, one on each side of the body running nearly to the axilla, with a cross bar at the lower end, making both limbs secure to their respective splints by dressings. The ordinary extension apparatus used for similar fractures in the adult is recommended by many surgeons. The apparatus suggested by Prof. Agnew in his "Surgery" seems to be the simplest in construction, the easiest in application, and the most rational in idea; it affords sufficient extension, is perfectly firm, and easily kept clean.

A Sanitary Wash-house.

Albert Shaw has a most suggestive paper in the March *Century* entitled "Glasgow; a Municipal Study," from which we quote: "Not the least important feature of the health department's work in Glasgow is the Sanitary Wash-house. A similar establishment should be a part of the municipal economy of every large town. In 1864 the authorities found it necessary to superintend the disinfection of dwellings, and a small temporary wash-house was opened, with a few tubs for the cleansing of apparel, etc., removed from infected houses. For a time after the acquisition of Belvidere a part of the laundry of the hospital was used for the purpose of a general sanitary wash-house. But larger quarters being needed, a separate establishment was built and opened in 1883, its cost being about $50,000. This place is so admirable in its system and its mechanical appointments that I am again tempted to digress with a technical description. The place is in constant communication with sanitary headquarters, and its collecting wagons are on the road early every morning. The larger part of the articles removed for disinfection and cleansing must be returned on the same day, to meet the necessities of poor families. I visited the house on a day when 1,800 pieces, from 25 different families, had come in. In 1887, 6,700 washings, aggregating 380,000 pieces, were done. The quantity, of course, varies from year to year with the amount of infectious disease in the city. The establishment has a crematory, to which all household articles whatsoever that are to be burned after a case of infectious disease must be brought by the vans of the sanitary department. The carpet-cleaning machinery and the arrangements for disinfection by steam, by chemicals, and by boiling I cannot here describe.

"The department's disinfecting and whitewashing staff is operated from the wash-house as headquarters. A patient being removed to the hospital, the authorities at once take possession of the house for cleansing and disinfection. It is a point of

interest also that the city has provided a comfortable 'house of reception' of some ten rooms, with two or three permanent servants, where families may be entertained for a day or more as the city's guests if it is desirable to remove them from their homes during the progress of the disinfecting and clothes-washing operations. The house is kept in constant use, and it is found a very convenient thing for the department to have at its disposal.

"As net results of the sanitary work of the Glasgow authorities may be mentioned the most entire extinction of some of the worst forms of contagious disease, and a mastery of the situation which leaves comparatively little fear of widespread epidemics in the future, in spite of the fact that Glasgow is a great seaport, has an unfavorable climate, and has an extraordinarily dense and badly housed working population. The steady decline of the total death-rate, and its remarkably rapid decline as regards those diseases at which sanitary science more especially aims its weapons, are achievements which are a proper source of gratification to the town council and the officers of the health department."

Medical College Commencements in 1890.

The following are some of the colleges which held their commencements in February or March, 1890: Atlanta Medical College, Atlanta, Ga., 51 graduates; Bellevue Hospital Medical College, 144 graduates; College of Physicians and Surgeons, Koekuk, Ia., 61 graduates, five of whom were women; Ensworth Medical College, St. Joseph, Mo., 14 graduates; Georgia College of Eclectic Medicine, Atlanta, Ga., 16 graduates, including one woman; Howard University Medical School, Washington, D. C., 26 graduates, one of whom was a woman; Iowa College of Physicians and Surgeons, Des Moines, Ia., 5 male and 2 female graduates; Medical College of Ohio, Cincinnati, 91 graduates; Miami Medical College, Cincinnati, 31 graduates; Pulte Medical College, Cincinnati, 16 graduates; Starling Medical College, Columbus, Ohio, 39 graduates; Woman's Medical College of Pennsylvania, Philadelphia, Pa., 40 graduates; Kansas City Medical College, Kansas City, Mo., 16 graduates; The University of Louisville, 145 graduates; Western Reserve Medical College, Cleveland, O., 30 graduates; Long Island College Hospital, 57 graduates.

Hypertrophy of the Prostate Gland.

In a paper on the prostate gland, in a recent number of the *Journal of Anatomy and Physiology*, Mr. Griffiths, Assistant to the Professor of Surgery at Cambridge, arrives at the following conclusions: 1. Enlargement or hypertrophy of the prostate gland results from a growth of the gland tubules with their associated muscle, so as to form new gland substance, closely resembling in its structure the normal gland. This constitutes the first or glandular stage. 2. After a variable time degenerative changes set in, which ultimately convert the new tissue into a mass of more or less dense, fibrous, connective tissue, containing only the atrophied remains of the glandular and muscular elements. This constitutes the second or fibrous stage. 3. No enlargement takes place behind the urethra except when glandular substance exists behind and above the level of the veru montanum in the situation of the "third" or median lobe. 4. So-called "tumors" are not in reality tumors, but merely pronounced localized enlargements of the gland, which pass through the same stages as the gland when enlarged as a whole. 5. True muscular tumors (myomata) do sometimes, though rarely, arise in the substance of the prostate gland, but they are pathologically different from the ordinary local or general enlargement of the gland.—*Lancet*, Feb. 15, 1890.

Treatment of Photophobia.

At a recent meeting of the Paris Ophthalmological Society, as reported in *La France Médicale*, M. Guttierer Pouce spoke of a case of keratitis with intense photophobia, in which he had successfully treated that symptom by what he calls "direct anæsthesia of the Gasserian ganglion." This he effected by the simble device of inserting into the external auditory meatus a plug of cotton soaked in chloroform. Such an easy method to carry out in cases of photophobia certainly seems worthy of more extensive trial, and if it proves useful in other cases, it will be a valuable addition to the resources of physicians.

NEWS.

—Dr. Edwin C. Leedom, of Montgomery county, died March 18, aged 85 years.

—A children's dispensary has been opened in connection with the Children's Hospital of the Mary J. Drexel Home, Philadelphia.

—Telegrams from Rio Janeiro, received about March 18, say that yellow fever has broken out in the cities of Campinas and Sao Paulo.

—George D. Rosengarten, who for many years was engaged in the manufacture of fine chemicals, died in Philadelphia, March 18, aged 89 years.

—It is announced that at Richfield Springs a magnificent new bath-house is to be put up at an expense of $40,000, and that it will provide sulphur and other baths equal to any in Europe.

—Dr. H. Augustus Wilson, professor of general and orthopedic surgery in the Philadelphia Polyclinic and College for Graduates in Medicine, has been elected Lecturer on Orthopedic Surgery at the Woman's Medical College of Philadelphia.

—Dr. Charles J. Nordquist, of Tuckahoe, N. Y., was killed recently by a train on the Harlem Railroad. He was driving from Mount Vernon to his home, and while crossing the track his phaeton was struck by the engine, and he was thrown out and killed.

—The 25th annual commencement of Bellevue Hospital Medical College took place at the Carnegie Laboratory on March 10, and the degree of M. D. was conferred on 144 graduates by the President, Prof. William T. Lusk, who made a brief address to the class.

—The commencement exercises of the Long Island College Hospital were held March 12 at the Brooklyn Academy of Music. Mr. Truman J. Backus, President of the Parker Institute, delivered the address to the fifty-seven graduates, and Rush W. Kimball was the valedictorian.

—About seventy members of the British Medical Association have resigned because they are dissatisfied with the way in which it is being managed by the party now controlling its affairs. The list of resigners includes the names of Thomas Bryant, Ch. Heath, Berkley Hill, Eustace Smith, Edmund Owen, Matthews Duncan and Frederick Treves.

—Mr. and Mrs. J. Vaughan Merrick of Philadelphia have offered as a gift to the vestry of St. Timothy's Protestant Episcopal Church, Roxborough, a furnished house containing nineteen rooms, with an acre of land, opposite the church, for a hospital, and $10,000 as the nucleus of an endowment fund. The gift is to be a memorial to the parents of the donors.

—The name of the donor of the large sum of a hundred thousand pounds for a convalescent home near London has come to light, notwithstanding his wishes to keep in the background; his name is Peter Reid. He has already been prominent for his generous interest in hospitals and other charitable institutions, but his last grand gift to the sick poor of London was announced as from an anonymous source in January last.

—The Society of the Alumni of Bellevue Hospital will hold a decennial reunion on April 8, 9 and 10, in New York. Clinics will be held at the hospital, papers will be read by members at the Mott Memorial Library, and a banquet will be given at the Hotel Brunswick on the evening of the second day. All the former internes have received invitations to attend. Dr. R. J. Carlisle, of No. 58 West Twenty-fifth street, will give information concerning tickets, etc.

—The druggists of Aberdeen, South Dakota, on March 17 signed an agreement to keep no liquors after May 1, and it is believed the agreement will be followed generally throughout the State. They object to the Prohibition act, especially those provisions requiring petitions signed by twenty women necessary to secure permits, the thousand-dollar bond clause and the general "humilitating features of the measure, which are an outrage on reputable druggists."

—It has been announced to the managers of the Moses Taylor Memorial Hospital at Scranton, Pa., that it is the purpose of Mrs. Taylor to contribute an endowment fund of $250,000, the income of which shall be used for the maintenance of the hospital. Her son, Mr. George Taylor, has given $50,000 for immediate use upon an unfinished part of the buildings. A daughter, Mrs. Pyne, is already represented by a gift of $100,000 for construction purposes. Under the will of the late Moses Taylor, a bequest for hospital purposes amounting to $250,000 was made, making a grand total of $650,000 from the family, given with the special object of meeting the needs of the employees of the large railroad and mining corporations which have Scranton as their most available centre.

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CLINICAL LECTURE.

PRACTICAL POINTS IN URETHRAL SURGERY.

BY ARPAD G. GERSTER, M. D.,

PROFESSOR OF SURGERY IN THE NEW YORK POLYCLINIC.

Gentlemen: We have before us an Italian, about thirty-five years old, who, we are told, has a stricture of the urethra which we will proceed at once to examine. We find, on introducing the bulbous sound, that the stricture is deeply situated, beyond the bulbous portion of the urethra, apparently in the bulbo-membranous portion, but possibly entirely in the membranous portion of the urethra. Slight manipulation seems to cause him considerable pain, and we will, therefore, inject some cocaine down to the seat of the stricture. Cocaine is a great boon in the treatment of urethral affections, especially where the patient's sensitiveness is very marked. Nevertheless, it is not an unmixed advantage. It has certain disadvantages, and it is proper that they be held in view. Cocaine anæsthetizes the urethral mucous membrane, but it also causes, during the time that anæsthesia persists, an unnatural anemia. If you have watched the effects of the drug when applied to the nasal or oral mucous membrane, you have noticed that shortly after the application of rather a strong solution the mucous membrane becomes pale, and, if there is any erectile tissue beneath it, as there is on the turbinated bones, the vessels contract, and the tissues become shrunken, pale and anemic. Now, while the operation is going on, this is well enough. This is an advantage, no doubt; but after the operation is completed, and the anemia is replaced by marked hyperemia, the hemorrhage following the operation is apt to be quite profuse. Now, in the nasal cavity that is of no great concern, for we can easily stop hemorrhage there; but if you have performed an operation in the deeper

portion of the urethra, seemingly with slight loss of blood, as soon as hyperemia vanishes, profuse hemorrhage is apt to set in, which may be very difficult to staunch. The possible toxic effects of the drug on the nervous system of predisposed individuals must also be noted as a source of embarrassment.

The cocaine injected has now produced its effect, and we will proceed with the examination. We find two strictures, one in the membranous portion, and the other at the bulbo-membranous junction. The instrument passes down six inches by measurement, which is a very considerable depth, before it meets with the first stricture.

Before proceeding to divide the stricture I will explain to you the mechanism of the urethrotome which we will use on this occasion. Although it is an instrument of my own device, yet I should not feel justified in presenting it if it did not possess certain advantages which would recommend it, whoever may have been the inventor.

I have now used it in a very large number of cases, commencing its use in May last. I have found it an instrument which can be honestly recommended, especially for use by the general practitioner. It can be taken apart and cleansed, and kept in repair by one who is not an instrument maker. Besides, it obviates the necessity for using a separate instrument—the urethrometer—as one has to do when an Otis urethrotome is employed. With this instrument one can diagnosticate and locate a stricture of large caliber. When introduced closed, it corresponds in size to No. 15 sound, French scale. Having passed the end of it just behind the stricture, the instrument is opened or widened, just beyond the strictured portion, to the desired size, by turning a thumb screw. A dial, at the proximal end, is seen recording the degree of widening in millimeters. The bulb of the instrument is now somewhat firmly drawn forward, so as to enter the stricture. Having thus put the strictured portion upon the stretch, the knife hidden in the curve at the end of the urethrotome is drawn towards the operator and now the bulb and knife together are deliberately drawn through the stricture. If the instrument, enlarged to the required size, can be readily moved up and down through the strictured portion of the urethra, its ready passage will show that the incision had been both long and deep enough. If it meets with undue resistance it will necessary to dilate and cut again. One important point must be observed : suppose you have a case of tight stricture which will permit of the bare introduction of this urethrotome, say No. 16, the man's normal urethral canal being No. 34 ; now, you have to cut sufficiently to widen the stricture from No. 16 up to No. 34, which is quite a jump, as you see. The stricture is tight, callous and hard. If, in such a case, you should widen the instrument up to No. 34, pull out the knife, and attempt to draw the whole instrument through the stricture at one stroke, necessarily using a great deal of force, a circular rupture of the urethra might result. This would be a very serious accident. The proper thing to do in a case of tight stricture, say No. 16, is to introduce the urethrotome, turn it up to No. 20 or No. 22, draw the knife through and cut up to that point. You then close the instrument again, re-introduce it beyond the strictured part, open it up to No. 29 or No. 30, and repeat the process as before. The third cut will have enlarged the strictured portion up to the normal. You will observe that a marked advantage which this instrument has over Otis's is the fact that you do not have to withdraw it from the urethra at all before completing the operation. When you use Otis's instrument you have to first measure the locality of the stricture exactly ; then mark its depth upon the urethrotome, introduce the instrument, cut the stricture, withdraw the urethrotome, and introduce another instrument which will tell whether the incision was deep enough and long enough. If not, you will have to re-introduce the urethrotome and cut again. I have myself, and have seen many other surgeons, re-introduce Otis's instrument as many as five times in a single operation. The operator does not want to cut too deep, and consequently has to bring it gradually up to the proper size, and measure the gradual effect of the operation. All this is obviated by my instrument. But there are so many urethrotomes that this fact in itself would be sufficient reason for not inventing another. Indeed, there are so many different instruments on the market that it casts rather a gloom upon the surgeon to hear of a new one, and I sympathize with that feeling. I feel, therefore, that it was my duty to give sufficient reasons for introducing another urethrotome to the profession.

Heretofore urethrotomes have been so constructed that they could not be cleansed properly. Otis's instrument, for instance,

cannot be cleansed as it should be. You must boil it to render it aseptic. That means rusting and clogging up of the delicate joints, so that the instrument in time becomes unreliable. One of those fine joints, having become weakened from rust, might break in the urethra during an operation, which would be quite a serious matter to the patient. All the advantages of the instrument I am using to-day, which have been mentioned, would not be sufficient to justify its introduction if it did not possess the additional advantage of being readily cleansed. I can take this instrument apart, piece by piece, in fifteen seconds, and put it together again in thirty seconds, and having so taken it apart there is no difficulty whatever in thoroughly cleansing and disinfecting it. It is composed of three rods and three screws. It is also a cheaper instrument than Otis's, and is composed of parts which will not break readily. I have felt for years the need of an urethrotome which could be easily cleaned; without such an instrument we cannot feel assured that infection of our patients is not due to our own fault.

You should never operate on the urethra without first washing it thoroughly with a mild antiseptic solution, such as boracic acid. If the operation is a deep one, you will also have to wash out the bladder. First, however, you will wash out the anterior part of the urethra, or that portion which lies in front of the cut-off muscle. This muscle, the compressor urethræ, is circular, and lies in the membranous portion of the urethra. The popular name is the cut-off muscle, because by its action we can voluntarily cut off the stream of urine.

The importance of this muscle, in reference to urethral complaints, had not been appreciated until within a recent date, when Ultzmann, of Vienna, called the attention of the profession to its practical importance; so that we no longer divide affections of the urethra into those situated in the pendulous, the membranous and prostatic portions. Now, the affections of the urethra are divided into those situated in the anterior or posterior urethra. By anterior affections we mean those situated in front of the cut-off muscle, and by posterior affections those situated behind that muscle. If you want to wash out the anterior urethra the catheter should not be introduced beyond the cut-off muscle, and then, while making the injection, the fluid will immediately escape alongside the instrument. But the moment the beak of the catheter passes beyond the cut-off muscle, the fluid will cease to escape alongside the tube, and will go on into the bladder. Yet one might naturally suppose that on removing the syringe the fluid would come back at once through the catheter left in situ; but this is not the case. Not a drop of fluid escapes. Recalling the physiological use of the two muscles which control the escape of urine, that in the urethra called the cut-off muscle, and that at the neck of the bladder called the sphincter vesicæ, we comprehend at once this phenomenon.

As mentioned, with the beak of the catheter just beyond the cut-off muscle, not a drop of the injected liquid returns. But thrust it in an inch farther and all the irrigating fluid will at once escape through the catheter. What does that mean? It means that the water having been injected beyond the cut-off muscle could not return past that muscle. Consequently it was forced beyond the sphincter vesicæ, into the bladder, and returned through the catheter when this was pushed forward into that viscus. In daily life, when the bladder becomes completely filled with urine you feel the necessity for passing water, the sphincter is then pushed apart by the fluid behind it, the cut-off muscle in the deep urethra remaining alone to guard against the escape of urine. The bladder and the deeper portion of the urethra, the portion between the cut-off muscle and the bladder, then become one cavity.

Remember, then, that if you wish to wash out the deep portion of the urethra you should not thrust the instrument clear into the bladder. If you should do that, the deeper urethra would not be touched by the fluid at all. The beak of the instrument must be introduced between the two sphincters. These facts should be known and observed by every physician who undertakes manipulations about the male urethra. We have demonstrated them on this patient. We have injected the posterior or deep urethra several times with a permanganate of potash solution of 1-2000, until the fluid which passed on into the bladder returned without a change in color. The hand syringe is better than the fountain syringe for this purpose. To recapitulate, we first cocainize the urethra. When the urethra has been cleansed by irrigation, and before proceeding to divide the stricture, introduce some more cocaine. Having made the last injection of cocaine, we wait a minute or

two for it to produce its anæsthetic effects, before proceeding to stretch and divide the stricture. After it has been divided the urethra is again washed out with a solution of permanganate of potash as before. I can assure you, that since I have adopted this procedure, dating about six years back, I have not had one case of urethral fever following the introduction and use of any instrument into the urethra. It is particularly necessary to wash out the urethra and bladder in this manner where the urine is ammoniacal.

This urethrotome, as you will notice, is nearly straight. I have frequently been asked by general practitioners whether I can introduce a straight instrument into the bladder, and my reply is: yes, very easily, sometimes much more easily than a curved instrument.

The urethral endoscope, for instance, which is a straight instrument, can be introduced with little difficulty, if sufficiently long, into the bladder, but you must manipulate it very carefully, and never force it. There is no text-book, there is nothing which will teach a man how to introduce an instrument down the urethra except practice. Some men are unable ever to learn to catheterize properly. They have not the manual gift, and are unable to acquire it. Forcing the instrument will only do mischief; it will create a false passage, and instead of passing into the bladder, go into the perineum or rectum.

Having cut the stricture in the manner already described, the question arises, what shall be the after-treatment? The patient should take five grains of powdered boracic acid three times a day in order to keep the urine sweet; of course he should be forbidden champagne, beer or any articles which have a deleterious influence upon the character of the urine. The bowels should be kept free by saline cathartics. He should keep as quiet as possible for six or seven days. I rarely introduce an instrument for four, five or six days, and, in sensitive patients, not before the seventh day. Then I begin the introduction of a full-sized steel sound once a day, later twice a week and still later once a week, and so on. This treatment is kept up for some time, or until we can assume that the cicatrix left in the urethra has become atrophied or thinned out just as it would do if it were situated on one's hand. You have probably observed that a cicatrix formed in the process of healing by granulation is for a time hyperemic and succulent. As it grows older it gradually flattens out, shrinks, becomes anemic, pale and thin. Until the cicatrix in the urethra following division of a stricture has reached that condition, dilatation should be kept up to avoid contraction. The stretching and pressure caused by the introduction of the sound from time to time favor the shrinkage and absorption of the inflammatory products of the cicatricial cell elements. How long is it before that process is completed? This varies in different individuals. In some persons a cicatrix will remain hypertrophic a long time, say five or six months, if not longer; in others the cicatrix assumes its pale character in eight weeks. So that if you ask me how long this after-treatment should be carried on, my reply is that we cannot lay down a definite limit. You should continue it until no vestige of re-contraction can be noticed. As long as there is the slightest tendency to re-contraction, and that tendency will remain as long as the cicatrix is succulent, you must continue the dilatation. The statement that simply cutting a stricture will cure it, is untrue. Subsequent dilatation is a necessity.

Again, it should not be forgotten that a cicatrix is liable to inflammation just as normal tissue; that after it has begun to shrink and atrophy it may again become irritated and inflamed from injury by rough handling, like the tissues situated elsewhere. Such a result may be expected, especially if you employ, in the dilatation, sounds which have not been properly cleansed. In this event, new connective tissue, or lymph, as it is called in the old text-books, will be deposited, and the cicatrix will become again succulent, or œdematous or even indurated, tending to aggravate the contraction. This, indeed, frequently takes place in this class of patients. Their trouble usually begins in a gonorrhœa, and many men cannot resist the temptation of exposing themselves again and again to infection, even shortly after having undergone painful treatment, made necessary by the consequences of their indiscretion. If, in this way, a stricture which has been on the road to absorption and disappearance should again be driven into a state of active inflammation, the man will find himself in the position he was in before his stricture was cut. All these details have to be taken into consideration in giving a prognosis as to the time required for after-treatment.

After having treated my patients three or

four weeks, and introducing the sound myself during that time, I then teach them how to introduce the full-sized sound themselves, give them particular instructions and warnings regarding cleanliness of the instrument. I let them first urinate in the morning and then pass the sound, for they will then be able to hold the water several hours, whereas if they first passed the sound and soon after urinate it may lead to infection. Many of them, if they find a recontraction after having neglected themselves a long time, will try to force the instrument through, and thus injure the urethra. It is not my experience alone, but also that of all surgeons who have done much urethral surgery, that men who have suffered almost the agonies of death because of retention of urine from a urethral stricture, which finally a surgeon has relieved by his art, will afterwards disobey his instructions, and go on neglecting to pass an instrument from month to month and year to year until recontraction takes place and they find themselves again in agony as they had been before. I have known this degree of carelessness to be manifested by men on whom external urethrotomy had to be performed because it was impossible to get an instrument into the bladder, and by men who had had to submit themselves repeatedly to puncture of the bladder in order to withdraw the urine. Therefore, whenever you have to treat a stricture do not forget the class of persons whom you have to deal with. They are men who will expose themselves in every way; who will repeatedly acquire gonorrhœa, who will permit a stricture to recontract to complete occlusion and when they suffer will charge the whole trouble to lack of skill on the part of the surgeon. Be very plain in your talk, for these men can stand a plain statement of their case. I never allow one of them to go away from me ignorant of all the possibilities, of all the aspects of his case. I do not hesitate on account of a false sympathy to tell such a man all that he is liable to. If you do not so impress him with the facts in his case he will tell the next physician under whose care he comes that you did not know your business. He will say that you used too strong injections, or that you did not cut the stricture sufficiently, or that you cut it too deeply. All the blame for his subsequent carelessness will be thrown on you. I hear patients say this every day, for it is rare that they have not gone through the hands of other physicians before coming to me.

COMMUNICATIONS.

INFANT DIETETICS AMONG THE POOR.[1]

BY J. HOWE ADAMS, M. D.,
PHILADELPHIA,
PHYSICIAN TO THE MEDICAL DISPENSARY, UNIVERSITY OF PENNSYLVANIA.

In apology for presenting this non-surgical subject to the Society's consideration, I feel that I can safely say that it is one which will engage every young practitioner's attention at the outset of his career; it will enlist his sympathies, demand his courage and persistence, and tax his ingenuity to the utmost.

One of the most popular subjects now being discussed by the medical profession is artificial feeding for infants. For babies who cannot be breast-fed, sterilizers have been devised; the exact proportions of milk, cream, lime-water, etc., have been determined; the efficiency of pepsin and pancreatin has been tested; all with increased satisfaction to physician and patient. This has been done so thoroughly and acceptably, that one of our leading authorities believes that, in the majority of cases, it would be better for an infant to be bottle-fed than breast-fed; for the reason that a perfect substitute for mother's milk can be made, which, unlike the maternal production, can be unlimited in quantity and permanent in quality. But the problem of artificial feeding for the babies of very poor and ignorant people is much more difficult; for the residents of the alleys cannot afford sterilizers, however simple or cheap, or if they were provided, would be restrained from using them through lack of time or faith, or from stupidity and carelessness. Poor patients, also, are less under the control of their physicians; for if they are not suited they wander off to other dispensaries or districts. The physician of a "poor district" finds the babies and children fed in every conceivable way, upon all sorts of trashy food; and he is forced into an unequal struggle to effect the slightest change. He speedily learns, as Dr. Keating has said, that the human mother is the only maternal animal which is not endowed by nature with instinctive knowledge of the proper way to

[1] Read before the D. Hayes Agnew Surgical Society.

care for its offspring. The difference between bottle-fed and breast-fed babies of poor women is most striking; the breast baby is generally hearty and vigorous; the other puny, weak and miserable; so that, whatever may be your belief in regard to the ordinary infant, it is far better not to be too hasty in allowing a change among your poor patients until you feel satisfied that permanent difficulties will prevent breast feeding. Generally, however, you will not be called in until the change has been made, and the child is suffering from some intestinal trouble. In preparing a suitable diet, several points must be considered. It must be inexpensive; simple to prepare, easy to keep, and fairly nutritious. First, it is necessary to start with good milk. Careful laws on the subject cannot be too severely enforced; for no method, however simple or satisfactory, can be of avail if the basis of food is tainted when delivered. The plan has been suggested of establishing dairies in every city which will daily sterilize and bottle milk in six or eight-ounce bottles, expressly for mothers residing in the vicinity, to be sold at the lowest rate possible; the bottles to be returned with a rebate when empty. But this plan does not seem to be feasible. In sterilizing large quantities of milk, owing to routine, haste or carelessness, the work is not apt to be thoroughly done. Again, those who are able would prefer to prepare it themselves at home, while those too poor or ignorant to sterilize milk for themselves are not apt to take the trouble to purchase milk already sterilized; or, if they do, will be suspicious of the milk, not understanding what has been done to it. Unless the children fed thereon should exhibit marvelous improvement, mothers would be very wary in using this prepared milk. This I have noticed from personal experiment. A plan which answers fairly well is that used in many dispensaries. A printed or written slip is given to the mother containing full and simple directions of what should be done to sterilize and prepare the milk-food. This plan is not always to be depended upon, especially if the woman is illiterate; hence, it is advisable to repeat the directions carefully and in detail, and to cause them to be repeated by the listener in turn. Even then, despite all care, twenty per cent. of the mothers will get matters wrong. A neighbor, relative or friend, who can read, or who is moderately intelligent, can generally be found to supervise the work until the mother does it right. As a rule, it is useless to order cream; for generally it will not be purchased, but will be simply left out, and no attempt will be made to supply its place. From pride or indifference no mention of the fact will be made; so that the child will be getting less nourishment than if more milk had been ordered at the outset, and no attention paid to the cream. The following directions are modified from the forms used at the Children's Hospital.

On one slip is printed:

From birth to the age of six months six or seven meals are to be given in 24 hours.

The food is made of

1. Milk,
2. Lime-water,
3. Arrowroot-water,

} To be mixed as follows:

Take eight tablespoonfuls of milk, and four tablespoonfuls of lime-water, and four tablespoonfuls of arrowroot-water; place in a bottle with a lump of sugar; warm the whole by standing the bottle in warm water. Use immediately.

In many cases teaspoons will be thought the measure, instead of tablespoons; hence that word must be emphasized.

On another slip of paper is placed:

Arrowroot-water is made by taking one and a half teaspoonfuls of arrowroot, rubbing it down until smooth with a teaspoonful of cold water. Then add one pint of boiling water, stirring all the time.

If this direction is placed on the same paper with the instructions for mixing food, in many cases it will be found that the teaspoonful and a half of arrowroot will be added directly to the milk and lime-water. If this is done, the food becomes most unsuitable for the child; while the mother will claim that she is following directions exactly. To sterilize the milk it is directed as soon as it is obtained from the dealer, to boil it and to cork it in an air-tight jar (for which purpose a Mason's preserving jar, or a beer bottle *thoroughly cleaned* will do), and to place it immediately in a cool place—either a cellar or an improvised ice-chest. The lime-water can be obtained from a pharmacy or can be made in the following manner: Take a piece of unslacked lime about the size of a walnut; put it in an earthen vessel; put on it two quarts of filtered water, stirring well. As it is used keep the vessel full by adding more water from time to time.

In case there is much vomiting, the proportion of lime-water can be increased and the arrowroot can be left out. If this does not suffice, the vomiting remaining excessive, stop the milk entirely and give from five to ten drops of brandy in water every two or three hours, returning to the milk cautiously in the next day or two. This often proves of service. If there is a good deal of diarrhœa with the vomiting, it is often advantageous to combine with the food an antiseptic, soothing, antacid astringent, which will check both the symptoms, neutralize any poison in the intestines, and quiet the child. For this purpose the following prescription—a favorite at the Children's Hospital—acts well; the addition of the aromatic syrup of galls giving a delightful odor to the preparation. It is given in strength for child of six months:

℞ Bismuth. subnit. . . . . ʒiss–iii
Tr. opii camph. . . . . ♏.xxxii
Sodii salicylat. . . . . gr. iv–viii
Syr. galli aromat., q. s.
Mist. cretæ . . . . . fʒi.
Aquæ q. s. ad. . . . . fʒii.
Sig. A teaspoonful every three hours.

To this treatment should be added injections of starch water, made as for starching clothes, only that the mixture, when it is cool enough to bear the finger, shall run like cream. It is better to add this description in ordering starch water, else sometimes it will be made of corn-starch, such as is used in making puddings; or it will be so made as to be comparatively thin while hot, but when cool become so thick that it will not flow through the syringe. To this injection can be added laudanum, one drop for each year of the child's age. Just enough to be retained by the bowel can be injected twice a day, each time after a passage; or starch water without the laudanum can be injected after every movement during the day, as much as the bowel will hold, most of it being rejected in a few minutes. A hot napkin held against the anus will serve to aid in retaining the enema within the bowel. In regard to the syringe for the injections, it is always better to describe what you want; otherwise anything may be used. A good way is to draw a little diagram of the shape and size of the instrument wanted. It should be of glass, so that dirt can be seen, with a point not too blunt to prevent insertion in the rectum. The point should have rounded edges so that the delicate mucous membrane will not be cut or injured. If this description is not given, a Davidson syringe, or some other big, unsuitable instrument may be pressed into service—of course with complete failure. In cases of commencing cholera infantum, when the bowel is filled with noxious matter, a small dose of castor oil and glycerine will seem to abort the case in many instances; followed by the above-mentioned prescription, which is strongly alkaline, the acid contents of the intestines are neutralized and the results will generally prove happy; especially if the child is robust, the weather not too hot, and the family hygiene fairly good. In well marked cholera infantum cases it will be found difficult to keep the little patients on suitable diet. In ordering broths, soups, etc., it will be found that, although strenuously insisted upon, they will be rarely prepared or given. The sick diet kitchens may furnish good food for the purpose, but often at the most urgent moment they fail. Where some simple form of nourishment must be devised, egg albumin serves well. Take the white of an egg, stir it in a cup of cold water until it is as thoroughly dissolved as possible, then strain out the flakes which remain. The child can be fed on this every hour or so. Brandy, which is better than whiskey, is generally borne well in this mixture. In the few cases in which I have tried rectal alimentation among poor children, it has met with small success. The parents look upon it as the height of folly; so that it usually serves only to disturb the child, which probably is moribund by the time this process is tried. Or if they believe it is doing good, it is impossible for them to do it efficiently, either from fear of injury to the child, or from using too large quantities at a time. When the cholera infantum is well marked, the indications for alkaline remedies are not so prominent; still this combination can be kept in service and some digestive stimulant, such as pepsin and acid, can be added to the routine; but the children seem to do about as well on some simple acid prescription, such as the following, which is palatable—a great point with poor children, who are more or less humored and spoiled in infancy. It is given in the strength for a child one year old:

℞ Acidi sulphurici dil. . . . ♏ xxxii
Liq. morphinæ sulph. . . fʒiss, ♏vi
Elix. curaçao . . . . . ♏ lxxx
Aquæ q. s. ad. . . . . fʒii

Sig. Teaspoonful every three hours.

I have not attempted to cover the great field of infant diseases or dietetics. I have simply endeavored to give a few practical ideas in detail, on points which books as a rule slur over or omit. Even on these questions I have not tried to be thorough, offering the article as simply suggestive of the many thoughts and plans which can be devised to solve this difficult question of feeding the babies of the poor.

TUBERCULOSIS APPARENTLY ARRESTED BY THE USE OF OPIUM AND WHISKEY.

BY THOMAS A. POPE, M. D.,

CAMERON, TEXAS.

About a year and a half ago, Mr. S. H. came to my office for treatment. He was suffering with laryngeal catarrh. He had been in bad health for some time; had been losing weight and coughed considerably. On carefully examining his lungs, it was manifest that he was suffering from tuberculosis. The upper lobe of his right lung was infiltrated and evidently breaking down. Within a few days from my examination he was taken with a chill, and pneumonia of the left lung developed itself. In some three weeks he had about recovered from the pneumonia attack, but it was then found that about one-half of left lung was infiltrated and showed no tendency to resolution. On the contrary, the disease steadily advanced until the entire left lung was completely infiltrated and no respiratory murmur could be detected in any portion of it. About four months after I first saw him, he had some alarming hemorrhages. He had these hemorrhages at intervals for two or three months. In January last I found that the lower lobe of the right lung was involved, and was fast breaking down before the disease.

About this time I began to give him hypodermic injections of morphine and atropine to relieve his cough. Nothing else would alleviate it. After a few visits the patient purchased a hypodermic syringe and began using it himself. I had only given him about half a grain a day, on three or four occasions; but when he had a syringe himself the expected result followed. He gradually increased the doses both in frequency and quantity, until within five months he was taking from four to seven grains of morphia hypodermically. He regarded death as inevitable; and, as I agreed with him, very little medicine was prescribed and none taken. I suggested a number of things, but he would not take more than two or three doses of anything.

At first I could not induce him to take any whiskey, or anything containing alcohol; but after he began the use of morphia he also began the use of whiskey, and for the last six months has drank on an average perhaps twelve ounces per day.

I occasionally examined his lungs, and after he began the use of morphia found that there was no further extension of the disease. The mucous râles disappeared from the base of right lung though some induration was left. The left lung, when I examined it, a month ago, was in about the same state as it was eight months ago. It is practically solidified, and no vesicular murmur can be detected in it. Large mucous râles can be heard sometimes over some portions of it.

The history of this patient would lead us at once to suppose that the disease was hereditary. One parent and a brother died of the disease.

Now what has arrested the disease? For arrested it is. The patient, after remaining in bed for about a year, began to get up, and now he is often on the streets and goes hunting whenever he wishes. He has in the last four months gained several pounds in flesh. I have often seen patients die from consumption, in spite of whiskey given in large doses; but this is the first patient I ever saw who rapidly acquired the morphine habit and used a large quantity daily. There is nothing in the physiological action of morphine to lead us to suppose, *a priori*, that it would arrest tuberculosis; but sometimes clinical experience has shown properties in drugs quite different from those which the laboratory has shown, or experiments have led us to conclude.

I should probably not have written this, had I not noticed some time ago a case where a man who was thought to be dying with consumption was given opium for a chronic diarrhœa, and soon began using large quantities of the drug; the result being that, while for many years—sixteen, I believe—he has been a confirmed opium eater, consuming about thirty-six ounces per year, he is still alive.

I don't write this for the purpose of inducing any one to try the experiment. It might be questionable, whether death would not be preferable in many cases to continual ill-health and the opium habit combined; for if such patients lived they could not hope to regain health and vigor unless the disease was arrested very early. But, if anybody has seen any case where life has been greatly prolonged by the use of opium I would like to hear from them. Did any one know an opium eater to die of consumption?

THE GENERATIVE ORGANS OF WOMEN IN PRIMITIVE STERILITY.

BY WILLIAM A. CAREY, M. D.,

ASSISTANT PHYSICIAN TO THE DISPENSARY FOR DISEASES OF WOMEN, HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

In an address delivered before the Medical Society of London, some years ago, Mr. I. Baker Brown expressed the hope that he might be able to stimulate his hearers to more diligent work in the study of the causes and treatment of sterility. The charge was made that reputable members of the profession were too indifferent towards this subject and, by reason of their apathetic attitude, allowed patients to fall into the hands of charlatans, who were ever ready to profit by the forlorn condition of their victims. Although essays have appeared since the time of Dr. Brown's address, and a more comprehensive idea of the subject is possessed, yet there are many physicians who still have a superficial knowledge of the condition and regard it as of little importance. This disposition, on the part of physicians, is reflected upon patients, and many fail to seek advice and treatment, upon the supposition that nothing can be done for their relief—that they "were born so" and are of necessity beyond the reach of medical or surgical assistance. A knowledge of the manifold causes of sterility is essential to the expression of an opinion regarding the prognosis in a given case. But how many physicians have only one or two ideas about the condition of the pelvic organs in such patients? They will probably expect to find a well-marked inflammation of the uterine mucous membrane, or, perhaps, a decided flexion. Failing to discover either of these abnormalities, they are not prepared to estimate the patient's prospects for improvement, nor to advise her in reference to treatment.

The tendency of many is to attach undue importance to anteflexion of the uterus, with accompanying stenosis of the canal, as a cause of barrenness. When it is present, it doubtless sustains a causative relation to the trouble; but that it is as frequent a cause as some assert, I cannot believe, and am of the opinion that a uterus in its normal state of anteflexion, and free from constriction at the internal os, is frequently mistaken, by those unskilled in the methods of examination, for the pathological condition alluded to. Dr. Beresford Ryley, in a recent contribution to this subject, states that "constriction of the mouth of the uterus is of very frequent occurrence" and that it is in his opinion "the cause of nine-tenths of the cases of sterility that are met with in practice."

This estimate is extreme, and the condition of the generative organs as presented in the table accompanying this paper, will not show "constriction of the mouth of the uterus" to figure so prominently in the pathology of barrenness. The statement quoted probably applies to sterility, whether primitive or acquired; but its exaggerated tone is none the less evident, for, I think, it will not be gainsaid that the acquired form of sterility will exhibit disease of the Fallopian tubes, far more frequently than any other condition, and will be associated with a patulous state of the os and canal of the uterus, rather than with constriction of these parts.

The cases tabulated have been collected from the records of the outdoor service for women, at the University Hospital, Philadelphia. They have not been selected, but taken *seriatim*, from a total of about 1300 patients. The number of sterile cases in the list is 110, or about 8.5 per cent. of those applying for treatment at this dispensary, during a certain period of time. Women married less than a full year have not been included, and there are but few who have not been married over three years. It is to be borne in mind that no case of acquired sterility, but only women who have never been pregnant, are comprised in this report.

DISORDERS OF THE UTERUS.

	No. of Cases.
Congenital absence of uterus and appendages,[1]	1
Failure of development,	1
MALPOSITION.	
Anteflexion with stenosis,	14
Anteflexion without stenosis,	2
Anteflexion with retroversion,	2
Anteflexion with retroversion and prolapse of left ovary,	1
Retroflexion, with endometritis,	4
Prolapsus, incomplete,	1
Procedentia,	1
Hypertrophic elongation of the intra-vaginal cervix,	1
INFLAMMATION.	
Endometritis, catarrhal, 4 / fungoid, 2	6
Metritis,	2
Perimetritis with cystitis,	2
TUMORS.	
Fibroid (subperitoneal),	5
" (intramural),	3

DISORDERS OF THE OVARIES.

Prolapse, but freely movable,	4
" and fixed by cellular deposits,	3
" and enlargement of left ovary	3
Inflammation,	10
Neuralgia,	3
DEGENERATIVE CHANGES.	
Cyst of left ovary,	1
Cyst of both ovaries,	1
Dermoid cyst,	1
Intraligamentous,	1
Fibroid degeneration of left,	1
Tumor (?) of left ovary with abscess, which discharges through the fistulæ on the inner aspect of thigh,[2]	1
DISEASES OF OVIDUCTS.	
Salpingitis, left side,	1
Salpingitis, double,	3
Pyosalpinx, left,	1

DISEASE OF BOTH OVARIES AND TUBES.

Ovaritis and salpingitis,	7
The same with involvement of the cellular and peritoneal tissues,	5
DISORDERS OF THE VAGINA.	
Inflammation,	1
Spasmodic contraction with urethral caruncles,	1
Rectocele and cystocele,	1
Cystocele,	1
MISCELLANEOUS.	
Atrophy and onset of menopause,	4
No demonstrable pelvic lesion,	3
Number of cases that refused examination and cannot, therefore, be classified,	7
Total,	110

[1] Reported in *University Medical Magazine*, Sept., 1889.

[2] Laparotomy will soon be performed upon this last patient.

It will be observed that seven of these patients refused examination and therefore cannot be classified. Four complained of symptoms due to menopause and had nothing beyond an atrophic change taking place in the genitalia. In addition to these eleven cases there were three with no discoverable pelvic lesions. One of these, although 23 years old, and apparently well developed, had never menstruated. The vagina was properly constructed, the uterus had an internal measurement of 2½ inches, fundus anterior, with no stricture of the canal or endometritis; and absence of any disease in the tubes and ovaries. The development of the escutcheon was not noted. This case might be designated as one of sexual apathy. The other two cases might be placed in the same category, or their barrenness be explained by the assumption of disease in their husbands. This leaves a balance of 96 cases, in four of which there were diseases of the vagina; and the remaining 92 cases are equally divided between disorders of the uterus and disorders of the ovaries and tubes.

The commonest uterine disorder in the list is malposition, numbering 26 cases, 19 of which are anteflexion with obstruction at the internal os. Two of these presented no special difficulty in the entrance of a uterine sound at the heighth of the intermenstrual period, but, judging from the dysmenorrhœa complained of, the canal, undoubtedly, became so constricted by the turgescence accompanying menstruation, that stenosis existed at these times. The next uterine disease in order of frequency is inflammation of the mucous, muscular, or peritoneal portions of the organ. These number 10 cases. As would be supposed, endometritis existed in some of the flexions and other disorders of the uterus, but it was of a milder type than in those cases which receive the diagnosis of "inflammation" of the different tissues of the uterus. Inflammation of the tubes and ovaries, plus the cases of congestion (the earliest stage) and of degenerative changes (usually the result of inflammatory action) make a total of 46 cases.

While the diseased condition of the organs of generation, as here outlined, may not, in every case, be a cause of sterility, but exist as a result, yet, in the majority of cases it sustains a causative relation to the non-productiveness. It is easy to comprehend how an acute anteflexion with stenosis of the uterine canal, may prevent concep-

tion by obstructing the entrance of the spermatozoa. Also, how in cases where no harmful disease of the uterus exists, impregnation may fail because of disease in the ovaries, sufficient to interfere with the development of the Graafean follicles. And again, how the same end may be defeated through pathological changes in the structure of the Fallopian tubes, on account of which the ovum is not propelled onwards, from absence of the vermiform movements and proper action of the ciliated epithelium; or because a barrier of inflammatory exudate is interposed between the two germinal elements.

It is rather more difficult to understand, how sterility can be caused by an incomplete prolapse of the womb. Even though in these cases the proper relation between the cervix uteri and male organ be disturbed, and the act of insemination be to that extent incomplete, pregnancy should occur if the spermatozoa possess the remarkable vitality and activity attributed to them. When the cervix has undergone hypertrophic elongation and projects beyond the vulva, the difficulty of depositing the seminal fluid in a favorable situation is obviously increased.

Chronic endometritis, unless of an aggravated form, would not be so apt to interfere with the union of the male and female elements of reproduction, but to cause the premature expulsion of the product of conception, from disease of the decidua. The presence of the fibroid tumors of the uterus is antagonistic to impregnation, chiefly from the diseased state of the endometrium which co-exists. Rectocele and cystocele probably act by preventing normal insemination. Acrid secretions arising from vaginitis may destroy the life or impair the activity of the spermatozoa. Vaginismus and urethral caruncle operate in a more complex manner — the pain experienced probably interfering with the evolution of the sexual orgasm.

In addition to the causes of sterility already mentioned might be noted: polypus, cancer, imperforate hymen, contracted orifice of the vagina, certain disorders of rectum, such as fissure, hemorrhoids and prolapsus ani, as well as secondary syphilis, or any disease which profoundly affects the health of either husband or wife, and, lastly, preventive measures.

The conclusions to be drawn from an analysis of the cases presented in the paper, are:

The most frequent cause of sterility is disease of the ovaries and tubes, whereby ovulation is prevented, or, where ova are developed, their transit through the tubes is obstructed. This condition exists in about 38 per cent. of cases.

The next cause in order of frequency is anteflexion of the uterus with stenosis. It occurs in 14½ per cent. of cases.

Inflammation and tumors of the uterus rank next, the percentage being about 15 for the former and half that for the latter.

Congenital absence of the uterus and appendages occurs once in one hundred and ten cases.

SALOL IN THE PRESENCE OF DIGESTIVE FLUIDS.

BY H. A. BISHOP,

PROVIDENCE, R. I.

PHENYL SALICYLATE. Salol, C_6H_4 (OH), CO. O. C_6H_5.

Salol, taken internally, first comes in contact with gastric juice secreted by the lining membrane of the stomach, an acid liquid containing hydrochloric and lactic acids. It passes thence into the duodenum, where it is subjected to the action of the bile and pancreatic juices. Bile consists chiefly of a solution of the two salts known as sodium glycocholate and sodium taurochlate, and has an alkaline character. The pancreatic juice is another alkaline secretion, differing from the bile in containing an albuminoid body. From a consideration of the chemical agents with which the salol comes in contact, I conclude that the decomposition is not due to the acid condition of the stomach. Further, the subsequent decomposition in the duodenum cannot be due to the resinous acids, acid glycocholic ($HC_{26}H_{42}NO_6$) or acid taurocholic ($HC_{26}H_{44}NO_7S$) existing as sodium salts in the bile and pancreatic juices; because resinous acids are incapable of neutralizing an alkali.

The decomposition then must be due to the alkalinity of these juices. This conclusion is supported by the fact that salol is very readily decomposed and saponified by weak alkalies. This view receives confirmation from the fact that salol is decomposed and exists as phenol (C_6H_5OH) and salicylic acid ($C_7H_6O_3$), which can be detected in the urine. The latter is partly excreted, and

occurs probably as acid salicylic ($C_7H_6O_3$) and acid salicyluric (C_9H^9NO). The phenol probably enters the blood as an alkaline carbolate, and acts as phenol introduced alone. The salicylic acid is probably not rendered any more useful by the presence of phenol.

From these facts it would seem that salol has no advantage over phenol and salicylic acid, introduced as such ; and it should not be indiscriminately used with antipyrin or phenactin in the same prescription.

PERISCOPE.

Pathology and Biology.

At the opening of the new building of the Biological Department of the University of Toronto, Dec. 19, 1889, Dr. William H. Welch, of Johns Hopkins University, delivered an interesting address on "Pathology in its relations to Biology," in the course of which he said: Pathology has to do with abnormalities, not in man alone, but in all living things, both animal and vegetable. The points of contact between animal and vegetable pathology are more numerous than might at first glance appear. The student of animal pathology can draw many instructive lessons from such subjects as the behavior of wounds and the parasitic affections in plants. We are most of us probably inclined to think too much of the separation between the pathology of man and that of the lower animals. While there is a wide distinction in the dignity of the object of study, yet from a scientific point of view this separation is of little account. Pathological investigations of diseases of animals constitute no less genuine and valuable contributions to pathology in general, than do similar investigations of human diseases. The advancement of recent years in the education and aims of those who devote themselves to animal pathology, will serve to bring into closer relations the students of human and those of comparative medicine.

There are many diseases which are common to man and to animals. These can often be studied to greater advantage upon animals in which many conditions can be controlled, which are beyond our control in man. In animals every stage of development of the disease can be studied, and, in general, fresher material can be obtained. We can modify in various ways external and internal conditions so as to reach a clearer comprehension of the morbid processes. Moreover the same disease may present interesting pathological peculiarities in different species of animals, so that the study of its occurrence in a single species affords most incomplete knowledge. For instance, the pathologist whose sole knowledge of such a disease as tuberculosis is derived from the study of the disease as it occurs in man, has a far less complete understanding of this affection than one who is also familiar with the striking peculiarities of this affection in cattle, swine, fowls and other animals.

Especial importance attaches, of course, to the study of such diseases as are communicable from animals to man, as for instance, anthrax, glanders, tuberculosis, many entozoic affections, etc., and in general these are the animal diseases which have received the most attention from the students of human pathology.

There are as many general pathological processes which can be studied to better advantage in animals than in man. Such subjects as inflammation, œdema, thrombosis, embolism and infection have been elucidated in large part by observations made on animals. Due caution is of course to be exercised in applying such observations directly to human beings.

Inasmuch as it is rarely possible for us to produce artificially all of the conditions which cause natural diseases, and as our very method of experimentation is in itself often a perturbating factor, it is no less important to study animal diseases resulting from natural causes than it is to study the same diseases experimentally produced. Of course there are many diseases which have not yet been opened to the experimental method of investigation.

A most important and promising field of pathological study, at present only partly cultivated, is found in the infectious diseases of animals and of plants, not only on account of the great economic interests often involved, but also as a means of widening and deepening our conceptions as to the causes, development, prevention and treatment of infectious diseases in general. Any pathologist who is at all familiar with the remarkable and peculiar conditions under which the so-called Texas Cattle Fever of the United States develops and spreads, will realize that the complete elucidation of all the etiological factors of this disease not only

would contribute to the solution of a great economic question, but also would open fresh points of view in our conception of infectious agents and their properties. When we consider the many conditions which it is in our power to control in studying animal diseases, and above all the possibility of submitting to an experimental crucial test our conclusions, it is clear that the study of natural and artificial infections, as well as of many other diseases in animals, is calculated to advance in the highest degree the science of pathology. It is not a small thing that questions which were once considered to be wholly transcendental, as for instance the doctrine of immunity against infectious diseases, have been brought within the working domain of experimental pathology.

Treatment of Intestinal Occlusion.

Dr. Kollman mentions in the *Münchener Medicinische Wochenschrift* a case of occlusion of the small intestine in an old woman, who, after opiates and morphia injections, had been unsuccessfully given in order to arrest the violent vomiting, showed signs of such extreme weakness that operative measures were out of the question. He therefore determined to act on the lower part of the bowel by means of glycerine injections, while keeping the upper part of the intestinal tract quiet by the administration of ice and by ice-cold applications over the stomach. In this way the peristaltic action of the gut below the spot where the obstruction existed was stimulated while the part above this was kept at rest. The result was satisfactory, for on the second day a motion was passed and the patient recovered.—*Lancet*, February 22, 1890.

Pretended Medical Journals.

The ignorance of many of the individuals who occupy positions as editors of the ephemeral, *soidisant* "medical" publications (almost invariably the personal organ of some quack or vender of quack medicines) is well shown in a recent number of *The Family Doctor*, a London publication of immense circulation. Its leading article was on the cocaine habit—the use of cocaine. It was embellished with a picture of a cocoa-nut palm in full fruit, and the article commenced by stating that: "Cocaine is a comparatively new drug, obtained from the leaves of the cocoa tree, which is a genus of the natural order of palms." This was nearly but not quite equalled by one of our eastern medical contemporaries, who recently copied an article from the *National Druggist* on a new artificial butter, said to be made in Germany from the meat and milk of the cocoa-nut, and added, sagely, "our St. Louis contemporary fails to state whether the fruit of which use is thus made is that of the *cocoa nucifera* or *cocoa erythroxylon.*"—*National Druggist*, Feb. 15, 1890.

To Clear Waste Pipes.

At night, pour into the clogged pipe enough Banner lye to fill the trap or bent part of the pipe. Be sure that no water runs in it until the next morning. During the night the lye will convert all the offal into soft soap, and the first current of water in the morning will wash it away and clear the pipe clean as new. One thing is very important to remember, namely, that the lye is a most powerful caustic and very dangerous if used carelessly. It should never be left where children could possibly get at it.

Retroperitoneal Hernia of the Vermiform Appendix.

At the meeting of the Pathological Society of London, held Feb. 4, and reported in the *British Medical Journal*, Feb. 8, 1890, Mr. Lockwood showed a case of retroperitoneal hernia of the vermiform appendix. He said that in some of those cases in which operators had failed to find the appendix, it might have been hidden in a pouch behind the cæcum. It was questionable whether it was ever absent, except as the result of disease. The hernia he showed was not particularly rare; within a year he had found two complete and one partial case. The appendix might permeate into either the subcæcal fossa or into the ileo-cæcal fossæ. The causation was either developmental or pathological. The subcæcal fossa was formed during the descent of the colon, and in one case the appendix had probably become immured in it during its formation. In the other case there was, in addition to the hernia of the appendix, a very large right inguinal hernia, and it was probable that the displacement of the ileac peritoneum which

had accompanied the formation of its sac had taken a part in the causation of the hernia. Retroperitoneal hernia of the vermiform appendix seemed, according to authors, sometimes to become strangulated. The morbid anatomy was very simple. When the cæcum was raised a small aperture was found beneath it leading into a large peritoneal pouch behind the ascending colon. The appendix lay within this pouch, either free or attached by a mesentery.

The American Physique.

Dr. J. B. Hamilton, of the Marine Hospital Service, is quoted by the Boston *Medical and Surgical Journal* as deprecating the slight attention paid in this country to a proper development of the physique. In an address before the Georgetown Medical College on "Ancient and Modern Physical Culture," he illustrated his subject by an estimate that not one-third of our population of the military age would be able to pass the physical examination of the recruit. —*Journal of the American Med. Ass'n*, Feb. 22, 1890.

Town Refuse Used for Fuel.

The municipality of Southampton, England, lift a portion of their sewage and sludge by the Shone hydro-pneumatic system without incurring any cost for fuel, as the solid refuse of the town is burnt in one of Fryer's destructors, and in so doing steam is generated by passing the products of combustion through boilers specially constructed for driving the air-compressing engines required to work the ejectors.

It must, however, be stated that the refuse burned is from a population of 60,000, whilst only the sewage from the low-lying portion of the town, containing 13,000 inhabitants, is lifted by the ejectors. The sewage is raised from the low-level sewer into reservoirs for treatment, the lift being 18 feet. The purified effluent and the sludge from the reservoirs is also raised by means of the hydro-pneumatic ejectors, the former being discharged into the sea whilst the latter is transmitted through cast-iron pipes about a mile in length to the Corporation wharf to be mixed with road sweepings, etc. This makes a good dry portable manure and is readily bought up by agriculturists.

The heat from the destructors not only drives the air-compressing engines, but it is also utilized for working electric-lighting plant, and compressed air is supplied to the Local Board of Shirley and Freemantle, two miles distant, for working a Shone ejector put down in connection with the disposal of the sewage sludge. The town refuse of Southampton, which amounts to about 50 tons per day, and consists largely of ashes and cinders, is generally collected in a fairly dry condition. The 50 tons produces about 70 indicated horse-power.—*Engineering and Building Record*, March 8, 1890.

A Piping Focus.

A proposition mooted some weeks ago in the city papers for the building of a milk pipe line from a point in New York State to this city provoked a rather general smile, and the matter was treated as a joke. The projectors were, however, it seems, in sober earnest. A company with a capital of $500,000 has, it is announced, been formed at Middletown, N. Y., for the purpose of constructing such a line. The proposed method of forwarding the milk is in cylindrical tin cans surrounded and propelled by water, and the promoters of the scheme assert that the time of transportation for a distance of 100 miles will not exceed an hour, while the profit will be about one cent a gallon. If this sort of things goes on, we need not be surprised to find New York the converging point not only of oil, natural gas and milk pipe lines, but of whiskey ducts from the blue grass regions, and beer ducts from Cincinnati, St. Louis and Milwaukee.—*American Analyst*, Feb. 27, 1890.

Anæsthetics in Suits for Damages.

According to a recent report in the *Boston Med. and Surg. Journal*, the *Jour. de Méd.*, of Paris, June 2, 1889, stated that a man who was injured in Paris by the fall of a stone from a church had brought a suit for damages in an action of tort. An examination of the plaintiff by medical experts was agreed to by the counsel, and three physicians were selected, who, in order to decide whether or not the man was simulating the paralysis of which he complained, proposed to anæsthetize him. To this proposition he naturally objected,

protesting that the examination was dangerous and that anæsthetics sometimes caused death. The experts, he said, could not insure him against a fatal effect of their operation; and their proposal was contrary to the letter and spirit of the commission under which they acted and to the fundamental principles of personal rights and the rules of legal medicine. He contended that a procedure of this kind was permissible only when it had for its object the saving of life or the cure of a patient. One might, perhaps, admit its necessity and legitimacy in a criminal case with reference to an accused person; but when an attempt was made to use it upon the victim of an accident, who was seeking the repair of a wrong which had been done him, it would be an unlawful attack upon personal liberty.

The court, as might have been expected, took the same view of the matter, and directed the experts to proceed with their examination, confining themselves strictly to the terms of their original instructions.

Early History of Water Supply.

The Sanatarian, February, 1890, quotes *Maverick's National Bank's Manual* as saying that during the first century of our era the water supply of ancient Rome was so abundant "that whole rivers of water flowed through the streets." It has been estimated at 375,000,000 gallons per day, or 375 gallons for each inhabitant, and was conducted through nine costly conduits of masonry, in whose construction wonderful engineering skill was shown. Their aggregate length was 249 miles. The principal aqueducts were the Aqua Martia, erected 431 B. C., 38 miles in length, and partly composed of 7,000 arches; the Aqua Claudia, a subterranean channel for 36¼ miles, for 10¾ miles a surface conduit, 3 miles a vaulted tunnel, and 7 miles on lofty arcades, with a capacity of 96,000,000 gallons daily; and the Nova Anio, which was 43 miles in length. Some of these aqueducts rose in three distinct arches, which conveyed water from sources of different elevations. In Constantinople, the capital of the Eastern Empire, the Romans left numerous subterraneous reservoirs covered with stone arcades resting on pillars. In France, also, the famous Pont du Gard aqueduct, which supplied the town of Nismes, is still an object of interest. It consists of 3 tiers of arches, the lowest of 6, supporting 11 of equal span in the central tier, surmounted by 35 of smaller size. Its height is 180 feet, with a channel 5 feet high by 10 wide; the capacity was estimated at 14,000,000 gallons per day.

India is noted for numerous ancient impounding reservoirs of vast dimensions. The Poniary reservoir has an area of 50,000 acres and banks 50 miles in extent. In Mexico and Peru the aborigines left water channels of wonderful length. The great aqueduct of Peru, built by the Incas, was 360 miles long.

The works of the Romans left nothing to be improved upon in the method of transporting water from a distance until recent times; but in the early part of this century it was found that by sinking artesian wells a supply could be obtained more economically.

Recent Saving of Life in Michigan.

In a carefully-prepared paper, read before the Sanitary Convention at Vicksburg, the proceedings of which are just published, Dr. Baker gave official statistics and evidence which he summarized as follows:

"The record of the great saving of human life and health in Michigan in recent years is one to which, it seems to me, the State and local boards of health in Michigan can justly 'point with pride.' It is a record of the saving of over one hundred lives per year from small-pox, four hundred lives per year saved from death by scarlet fever, and nearly six hundred lives per year saved from death by diphtheria—an aggregate of eleven hundred lives per year, or three lives per day saved from these three diseases! This is a record which we ask to have examined, and which we are willing to have compared with that of the man who 'made two blades of grass grow where only one grew before.'"

Dengue in Constantinople.

In the *Wiener med. Wochenschrift*, December 28, 1889, Dr. Constantine Malcas describes the appearance of dengue in Constantinople. He says dengue fever, three-day fever, break-bone fever, dandy fever, scarlatina, rheumatica, abou-recabe, abou-abou, fièvre polia, brockenring fever, etc., for this interesting malady has many an alias,

appeared, towards the end of June, in one of the unhealthiest districts of Constantinople, a district noted for its unhealthy sanitary arrangements, and for being, almost always, the starting point of every important epidemic. From hence, as from a centre, the epidemic radiated all round, infecting first the nearest districts, and then the more remote, until, finally, not a spot of the town or suburbs escaped. Most probably infection came from the region between Smyrna and Constantinople, having raged there a short time before, and revived again with the long continued rains. As regards its character, dengue is a highly infectious eruptive fever, returning one or more times. It is sporadic or epidemic, mostly sudden in its onset, and characterized by violent pain in the head, joints and muscles, as also by prostration, and a lengthy convalescence lasting for weeks. It is thus pretty clearly defined, and would not be apt to be mistaken, except perhaps in some cases, for measles and scarlatina. It differs from the last in the absence, almost invariable, of angina and albuminuria, and presence of pains in the joints and muscles, and it differs from measles in the absence of catarrh, and in the course it runs.

Our author having observed 650 cases, describes a typical case. "In most cases dengue begins suddenly with a mild or severe rigor, which, however, is never so strong as that of intermittent fever. Sometimes the disease is heralded for one or more days by general malaise, headache, loss of appetite and troubled sleep. With the rigor the temperature rises from 38.5 up to 39.5, and general pains arise of head muscles and joints. The patient lies powerless, feels as if he had been broken on the wheel, his face is reddened [prodromal eruption], his eyes are slightly or severely congested and sparkling; he carefully avoids every motion, so as to prevent an increase of his pains and the disagreeable feeling of cold. The skin is rosy red, warm, dry. The breath has a peculiarly bad smell, *fœtor ex ore*. The tongue is broad red at the point and sides, and covered with a thick, yellow, or grayish-white coat. The mouth is extremely bitter and dry. At the commencement of the illness there is frequent vomiting, or during the whole illness a persistent inclination to vomit. Thirst is not always present. Bowels costive, diarrhœa but seldom. After from two to four days the temperature gets normal, the pains gradually lessen or altogether vanish, the patient lies for days or weeks in great prostration and weakness, suffering still from the bitter taste in the mouth and the lack of appetite. On the fourth or fifth day of the illness the rash appears, accompanied by more or less severe itching. This, with scaling of the skin, disappears in from five to eight days, and the scene ends with *restitutio ad integram.*"

One thing to be noted is that the liver and spleen are quite normal. The prognosis is exceedingly good. Death is a rarity, and when it occurs is due to accompanying ailments, and not to the disease itself. The treatment is, except in the case of violent symptoms, to stand aside and let the disease run its course.—*Manchester Med. Chronicle*, February, 1890.

Orexin.

Orexin is the name given to a new and complex synthetic product recently introduced in Germany. It is notable as "breaking the record" of the new synthetics, being neither an antipyretic, analgesic, nor soporific, but a stomachic and appetite producer—hence its name, being derived from *orexis*, appetite. Chemically, it is phenyldihydrochinazolin, and is one of a series of products prepared by MM. Paul and Busch, and is described as being a derivative from chinazolin, a term applied to a compound represented by a structural formula differing from that of chinoline in having two CH groups of a naphthalene ring replaced by N, instead of one. The *Pharmaceutical Journal and Transactions*, commenting on the substance, says that orexin hydrochloride is reported to have been used by Professor Penzoldt in thirty-six clinical cases, in most of which appetite is said to have been induced and the digestion stimulated. In the case of healthy persons the appetite is stated to increase immediately after the first dose, but with most patients the improvement is manifest after some days. The formula recommended for administration is two grams of orexin hydrochloride made up with extract of gentian and althea powder into twenty pills, gelatin-coated, three to five of which are to be taken once or twice daily with a large glassful of meat broth, a considerable quantity of liquid being required on account of the pungent properties of the compound.—*National Druggist*, March 15, 1890.

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CHARLES W. DULLES, M.D.,
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The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

ELECTRICITY IN THE TREATMENT OF EXTRA-UTERINE PREGNANCY.

No question in the whole domain of medicine has aroused greater interest than that of the proper treatment of extra-uterine pregnancy in the early months. In this country the use of the Faradic or of the Galvanic current, to kill the embryo and to arrest the growth of the ovum was for a number of years the recognized method of treatment. After a time, however, the advocates of the removal of the gestation cyst by abdominal section, forced attention to the fact that in many cases the gestation sac or the ovum has ruptured, and internal hemorrhage has taken place where the case comes under observation. At the present time the use of electricity is only advocated prior to rupture and internal hemorrhage. But even this position is now attacked by the advocates of exsection, on three grounds: first, it is denied that it is possible to make a diagnosis of extra-uterine pregnancy prior to rupture and hemorrhage; second, that if the fetus is killed the placenta may continue to develop and cause rupture of the sac with fatal hemorrhage; and third, that the dead ovum is a foreign body liable to produce inflammation and suppuration, and to cause all the evil effects of a pyosalpinx. Those who have no theory to defend are prepared to believe that a reasonably positive diagnosis of extra-uterine pregnancy can be made prior to rupture. At the same time it must be admitted that mistakes will occur, just as is the case in the diagnosis of other small masses in the pelvis, such as pyosalpinx or small ovarian tumors. The second objection will hardly decide any practical man for or against the use of electricity as a feticide in extra-uterine pregnancy. The third objection is one of large interest, and one which can be determined by the after histories of cases of extra-uterine pregnancy which have been treated by electricity.

This point has been investigated by Dr. A. Brothers, in a paper read before the New York Academy of Medicine, based on fifty-four cases of extra-uterine pregnancy treated with electricity. He states that the immediate effect of using electricity in the vast majority of cases has been an abatement of symptoms due to the growth, and a marked diminution in its size. In three cases the fetus was probably expelled into the uterine cavity. In two, suppuration with discharge of the fetus occurred, but the patients made a good recovery. Death occurred in five cases; but in only one can it be attributed to electricity. In this case—of Janvrin—hemorrhage occurred from the sac wall. In the other four fatal cases, electro-puncture was the method employed in two; while in the third, simple puncture of the cyst, after electricity had been discarded, was responsible for the fatal result; in the fourth, the fetus was finally killed by injections of

morphine, and afterwards laparotomy was done.

By correspondence, Dr. Brothers has been able to trace the history of twenty-five cases observed for periods ranging between one and eight years after the employment of electricity. In this way he is able to state that twenty-four patients, reported as cured, have been heard from after the lapse of from one to eight years, and that when last seen all were reported well. Many of them still carried traces of the old trouble, and while it is not possible to assert that these little masses may not in time become troublesome, still the fact remains that up to the present time they have not done so.

The conclusions of Dr. Brothers—which may be accepted as those of the advocates of the electrical treatment—are as follows: 1. The risk of rupturing the sac of an extra-uterine pregnancy, and of causing death by internal hemorrhage, is slight. In but one case has this possibly occurred, that of Janvrin, and in this the reporter himself thought the danger existed prior to the use of electricity. 2. Suppuration of the dead fetal mass has not occurred in any case in which electricity was employed before the third month. 3. After the third, or possibly the fourth month, electricity should not be used. 4. Electro-puncture is to be condemned in all cases. 5. In cases of mistaken diagnosis no harm is done by the electrical treatment. 6. By the use of Galvanism or Faradism, early extra-uterine pregnancies can be checked in their growth, and caused to disappear entirely or to become shrivelled up. These remaining masses have thus far caused no subsequent trouble.

These conclusions are based on very considerable evidence, and are certainly entitled to careful consideration. They will be accepted by all who are not radically opposed to any other treatment of extra-uterine pregnancy but exsection. These conclusions, however, very much weaken the position of the advocates of electricity. It is not to be used after the third month, and not after the occurrence of internal hemorrhage. Hence the treatment is entirely inapplicable to all cases not coming within these limitations. And in its own field the plan of treatment comes into competition with the exsective operation; which, done under the circumstances by a skilled operator, is practically without mortality.

While professional judgment concerning this question has not yet crystallized, it is setting strongly in favor of the exsective operation when the services of a skilful operator are available, and with this view we are heartily in sympathy. At the same time medical men are certainly justified from the evidence produced by the advocates of electricity, in employing the Faradic or the Galvanic current under the conditions laid down by Dr. Brothers. When a skilful surgeon is not at hand, undoubtedly the electrical treatment offers greater inducements than abdominal section performed by a novice.

EVASION OF THE MEDICAL PRACTICE LAW IN VIRGINIA.

The Medical Examining Board of Virginia, which is recognized by all who are interested in elevating the standard of medical proficiency in the United States as one of the most valuable institutions in the country, is just now being brought to public notice by some of the newspapers of Virginia, because the *Virginia Medical Monthly* insists that a woman, who was recently appointed to be Assistant Physician in the Western Virginia Lunatic Asylum, ought to be made to pass the examination of the Board—as we certainly think she should, under the law of Virginia.

This woman is a graduate of the Woman's Medical College, of Philadelphia, and the *Vindicator*, of Staunton, Va., objects to her being examined on the ground that one who had received a diploma from this excellent school might be assumed to be competent to pass a fair examination by the State Exam-

ining Board. This sounds as if it ought to be so. But that the inference is not warranted by the facts is pointed out by the editor of the *Virginia Medical Monthly*, in the issue for March, 1890. Dr. Edwards here states that, during the examinations at Roanoke, Va., last September, twenty-six persons applied for examination (three of whom, however, were not graduates), and only eight graduates of medicine were found qualified to enter upon the practice of medicine. And yet the fifteen rejected graduates held diplomas from medical colleges in every particular the equal in ability, opportunity and fidelity of the professors of the Woman's Medical College, to teach and to graduate only upon supposed merit.

More than this, as our contemporary points out, the proposition that this woman shall be permitted to do what is plainly a breach of the law is wrong in itself, without regard to her character or attainments. It also threatens the prospects of other States, such as Virginia, North Carolina, Alabama, Florida and Minnesota, which have established, or are establishing, medical practice laws.

The Medical Examining Board of Virginia is only five years of age. It was never in contemplation by the profession, in seeking the medical practice Act, to displace medical men from positions already reached, but, letting the past alone, and establishing a new era of progress, the profession of Virginia put into existence, under law, on January 1, 1885, the Medical Examining Board of Virginia. Since then this Board has rendered efficient services to the State and to the country by testing impartially the qualifications of all, so far as known, who have entered the profession in Virginia. Through this most valuable agency the people of that State are deriving untold benefit by having only competent physicians sent to them, while the profession itself is gradually resuming the rank it once held among the learned in science and letters.

In referring to this case we feel sure that the readers of the REPORTER will extend their hearty sympathy, and what support they can, to the State Examining Board of Virginia and those who demand that no one shall be allowed to evade the legal portal to practicing medicine in that State. We may add, in conclusion, that any one who would attempt to do so might serve as a warning to deans of colleges and other complaisant individuals who too readily sign testimonials for applicants for public positions.

SEWERS AND WATER-SUPPLIES.

It is stated that the municipality of Benares, in India, intends to discharge the sewage of the city into the Ganges a few miles below the town. As India has no enactment similar to the English Rivers Pollution Act there is no power to prevent their doing so, nor to prevent other cities in the Ganges valley following its example, and thus converting the river into a sewer. The *British Medical Journal*, Feb. 8, 1890, commenting on this fact, says: It is understood that the Calcutta Health Society has taken the matter up, and it is to be hoped that the Legislature will interfere before what is now only a possible danger of the distant future becomes a serious menace to all towns on the lower Ganges, and before any money is expended on costly works which may have to be closed hereafter. The city of Benares contains about 190,000 inhabitants and the best method for disposing of their sewage is a difficult problem. The easiest way to get rid of it is to pour it into the Ganges. The depth of this river in front of the town, even in the dry season, is fifty feet, and in the month of September the freshets add more than forty feet to this depth. In the dry season the breadth of the river at this point is 600 yards, and it extends to half a mile in the rainy season; nevertheless the extension of sewers into the river is to be avoided as far as possible and it is proper to call attention to this interest-

ing instance of such a procedure. The danger to persons living on the Ganges below Benares, if the projected sewerage system is carried out, cannot be regarded as beyond question very great; for the demonstration of evil actually resulting from what is called sewage pollution by no means comes up to the measure of what is repeatedly predicted for it. Still, there can be no doubt that it is time the ingenuity and practical interest of thinking men had devised and put into operation some better way of disposing of sewage than casting it into running streams. Some concerted and uniform efforts ought to be made in every civilized country to have laws enacted to prevent any extension of the already too extensive practice of using rivers as receptacles of all the filth of the cities planted on their banks.

PRECAUTIONS AGAINST CONSUMPTION.

The State Board of Health of Pennsylvania has recently issued a pamphlet containing a brief statement in regard to the nature and ravages of consumption, especially in this State, with an account of its mode of propagation by contagion, according to the views now held by many students of the subject, and some instructions in regard to the precautions to be observed in order to lessen the risk of its spread.

The whole pamphlet is worthy of careful study by physicians as well as by laymen, and its wide dispersion among the people could not fail to do good. Without committing ourselves to all the theoretical details of the pamphlet, we may say, that we regard it as a most excellent one, and can safely applaud its moderate and scientific tone, and the plainness with which its instructions are conveyed. It includes valuable suggestions for the inspection of cattle and articles of food, and for the destruction of any germs of tuberculosis which may be present in the latter. It also contains good advice to persons predisposed to consumption, as well as those who have already acquired the disease.

The whole pamphlet is worthy of careful study by physicians, as well as laymen, and its wide dispersion among the people could hardly fail to do much good. Copies of it may be obtained by addressing Dr. Benjamin Lee, of Philadelphia, Secretary of the State Board of Health of Pennsylvania.

BOOK REVIEWS.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the REPORTER.]

THE NATIONAL MEDICAL DICTIONARY: including English, French, German, Italian and Latin technical terms used in medicine and the collateral sciences, and a series of tables of useful data. By JOHN S. BILLINGS, A. M., M. D., LL. D., etc. 2 volumes quarto (10½x7½), pp. 731 and 799. Philadelphia: Lea Brothers & Co., 1890. Price, $12, cloth; $14, sheep.

These magnificent volumes may well assume the title of the National Medical Dictionary, partly because they were prepared at the seat of the great National Medical Library, and partly because they deserve an imposing title. With a number of able assistants Dr. Billings has prepared a dictionary, the like of which does not yet exist in the English language, and of a sort for which there was great need. So far as our examination of it goes, it is marked by great accuracy as well as great scope.

The typography and general plan of arrangement are admirable, and the whole work of the publishers fully equal in merit to that of the editor and his assistants; and this is saying a good deal.

TRANSACTIONS OF THE STATE MEDICAL SOCIETY OF NORTH CAROLINA. Thirty-sixth Annual Session held at ELIZABETH CITY, April 16, 1889. 8vo, pp. 159. Wilmington, N. C.: Jackson & Bell.

The Transactions of the North Carolina Medical Society for 1889 include twelve papers, seven of these being the reports of the chairmen of the various sections. Among the original essays, that of Dr. L. G. Broughton, of Reidsville, on Aseptic and Antiseptic Midwifery, deserves special mention, although we cannot agree with Dr. Broughton's practice of giving half-gallon intra-vaginal douches, followed by a one-pint injection of an antiseptic solution, twice daily for a week or more after parturition. Again, in Dr. T. D. Haigh's excellent article on the Medico Legal Aspects of Inebriety, the line drawn between drunkenness, as a crime, and dipsomania, as a disease, seems an almost indefinable distinction. Dr. Haigh advocates the establishment of asylums for inebriates, and that they should be treated as patients and not as criminals. Among the other papers, Dr. R. L. Payne's address on the Mental Factor in the Causation and Cure of Disease, is especially entertaining, as it is enlivened by occasional indulgence in humor and poetry. Some of the reports of the chairmen of the special sections are col-

lated from medical journals, and read more like abstracts than reports of committees. The papers are, however, of a high standard, well written, and show clearly that our North Carolina brethren are both active and progressive.

TRANSACTIONS OF THE STATE MEDICAL SOCIETY OF ARKANSAS. Fourteenth Annual Meeting. 8vo, pp. 113. Little Rock, Ark.: Mitchell & Bettis, 1890.

The Transactions of the State Medical Society of Arkansas for 1889 include twenty-four papers and some reports. These are mostly quite short, and the greater part of them are made up of reports of cases. A predominence of gun-shot cases is noticeable; in fact very little space is devoted to anything besides surgery and official reports. Many of the papers contain much that is of clinical interest, and some of the cases reported are rare. Perhaps the most notable feature of the Transactions is the Address on Surgery, by Dr. T. W. Hurley, of Bentonville, Ark., which relates especially to the subject of senile hypertrophy of the prostate gland and the vesical troubles arising therefrom.

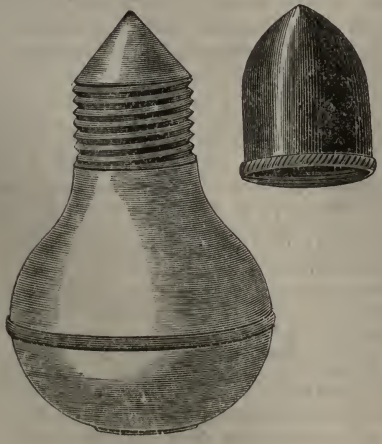
The Transactions show careful editing, are well printed, and are a credit to the Society.

New Remedies and Appliances.

In this department, notice will be given of Remedies, Food Articles, and Instruments or Surgical Appliances of which specimens are sent to the Editor; it will bear the same relation to these articles that the department of Book Reviews now does to books.

Urethral Syringe.

We have received from Dr. F. Wilhoft, of New York, what is known as the P. P. P. syringe. This little syringe measures 1½ by 2¾ inches, has a capacity of somewhat over half a fluid ounce, and is made of one



piece of the best soft rubber. It dispenses with the annoying piston, and injects by simply compressing the bulb with the thumb while its neck is held between two fingers of the right hand. To protect its soft conical point and to prevent pocket dust from entering it, a finely-constructed and finished hard rubber cap is screwed over it, which makes it air- and water-tight, and enables the patient to carry it full of the ordered injection in his pocket. The advantage of this arrangement, which facilitates frequent warm injections even during hours of business, should recommend it.

By compressing the bulb and relaxing the pressure several times, a perfect washing and cleansing of the mucous membrane of the urethra is possible.

Correspondence.

Electricity as a Remedial Agent.

To the Editor.

Sir: I am prompted by the excellent Editorial on "Electricity as a Remedial Agent" in the Reporter, March 22, 1890, to contribute a few remarks of my own on that subject, which is one that has long been of interest to me. The judicial and scientific spirit shown in the editorial is but characteristic of the pages in which it appears, and I cannot too warmly commend its clear presentation of the case; yet there are minor points touched upon on which I differ somewhat. In the first place I do not think it entirely just to the profession, as a whole, to say that it is prejudiced against electricity, as was claimed by the gentleman quoted in the editorial. It is my judgment that this statement should now apply only to those gynecologists who are so narrow in modes of thought as to look upon abdominal section as the principal indication in the diseases of women.

This subject has been a favorite study of mine for years, stimulated perhaps by a love of pure physics; and it has not been my experience to meet with real prejudice from any other class. Electricity has, on the contrary, been freely accorded a higher position than it deserves in the treatment of chronic organic diseases of the nerve centres; for in what publication upon such subjects can one fail to find it recommended? Perhaps there may be some reason for this in the incurable nature of these complaints, and the fact that nothing else has been actively used for them; for as soon as the field of its use is extended to those conditions that have been actively

treated, often successfully, by the abdominal surgeon, an intense antagonism is developed. These men have been curing many of their patients, though often at the sacrifice of a considerable percentage of lives and always at the cost of mutilating important portions of the body, and many of them still refuse to believe that their best results can often be attained by an agency that does not present these disadvantages.

As to the best mode of ascertaining the truth in this controversy, I agree, with some reservations, that "we need the experience and opinions of men who do not make a hobby, or a display, of treatment by any given method, but who are willing, carefully, patiently and conscientiously to try whatever seems likely to do good to the sick and suffering, and who faithfully report their results for the instruction of their fellows." If I could have the selection of such men I would be content with the results; but I fear much that the average selection of others would give men of so negative a character that the results would not be of the best. The display of a hobby is often associated with that technical expertness which is attained only by enthusiastic devotion; and so firmly do I believe this, that when I am of the opinion that my own abdomen must be opened I intend to call upon my opponents, the abdominal surgeons, to do the operation. That enthusiasm and the knowledge of a specialist can be combined with honesty, I do not think the REPORTER will deny.

But, that the attention of the profession may be directed forcibly into the proper channels I think that more than mere individual reports are essential, and it was in this spirit that I asked the Philadelphia County Medical Society to appoint a commission to pass upon my own work in the electrical treatment of fibroid tumors. The distinguished gentlemen that have been associated with me is a guarantee that the report will be a model one of its kind.

The subject of the value of electricity in medicine is not a general one, but distinctly a question of its value in definite, individual diseases, and the facts are therefore susceptible only of an empirical determination. In studying the results, both favorable and unfavorable, I have been led to conclude that it acts in either of three ways in the cure of disease, and as these conclusions have not previously been distinctly formulated, they may be of interest to your readers: The first and most important mode of action of electricity is the local one; and, as this can only be appreciable when a dense current is transmitted through tissue, this action is limited to a short distance from the poles—say an inch or so, in soft tissues, with a powerful current—and cannot be strongly applied to tissues covered by bony or densely fibrous material. This mode of action explains good results in truly peripheral diseases of the muscles and nerves in gynecology, and in diseases of the abdominal organs, and offers as ready a reason for the bad results often met with when the real seat of the disease is within bony cavities. The second mode of action is by apparent physiological stimulation, of which an example is the relief of old hemiplegic contraction or of sciatica by Franklinic sparks. The third mode of action is by pyschic impression.

Such a statement is useful as indicating in a manner the limitations as well as the field of this agent.

Yours truly,

G. BETTON MASSEY, M. D.

Philadelphia.

Treatment of Gonorrhœa and Gleet.

TO THE EDITOR.

Sir: I advise my patients to make water in order to clear out the discharge which has collected in the canal, that the mucous membrane may be freed from the purulent discharge before using an injection.

The patient is instructed to warm the injection before using it, because on this will depend the success of the operation. Warm injections are effective and painless. A standard glass male syringeful of a mild injection should be placed in a test tube, cup or saucer, and warmed over a candle or alcohol lamp before using it. The injection should be retained five minutes or more, and repeated two or three times daily for two or three days; and after that only once a day will be sufficient.

The following formula is a good one:

℞	Bismuth. subnitritis	ʒss
	Zinci sulphatis	
	Plumbi acetatis āā	gr. viii
	Acidi carbolici	♏ xx
	Aquæ destillatæ	fʒiv
M.	S. Shake before using.	

Yours truly,

R. J. MAINEGRA, M. D.

New Orleans, La.

Hemorrhage from Umbilicus.

To the Editor.

Sir: My friend, Dr. Charles W. Jefferson, of Federalsburg, Caroline Co., Md., recently saw a case of umbilical hemorrhage. When called two or three days after delivery, he found the child's clothes saturated with blood. Upon inquiry he learned that the hemorrhage had been going on for thirty-six hours. The child was stripped and the oozing around the edges of the umbilical depression was perceptible, with the cord soft, gangrenous and nearly off. A piece of absorbent cotton steeped in Monsel's solution was applied, and the hemorrhage immediately ceased. Orders were left for this course to be continued with compression. All went well for twenty-four hours. The styptic became displaced and bleeding recurred. Although the hemorrhage was small in quantity, death ensued in a very short time.

Yours truly,

H. F. Willis, M. D.

Preston, Md.

Notes and Comments.

The Teeth and Oral Cavity of Pregnant Women.

In an article on the teeth and oral cavity of pregnant women, in the *Journal of the American Medical Association*, Feb. 21, 1890, Dr. John S. Marshall says: From time almost immemorial, pregnancy has been recognized as having a deleterious effect upon the teeth; and this opinion has become so general that it has been crystallized into the familiar adage—"For every child a tooth." All writers upon obstetrics and the care of pregnant women recognize the fact that during the periods of gestation and lactation women are more liable to suffer from diseases of the teeth and neuralgia of the facial region than at other times; but the causes, prevention or mitigation of these diseases has received but little attention; in fact, it seems to be considered by most writers that these troubles are among the inevitable consequences of gestation and that little can be done to relieve them.

With this view I do not fully agree, for I believe much can be done to prevent or relieve the suffering incident to caries and the loss of the teeth, and the neuralgic condition of the face and mouth so common at this period. But in order to appreciate the causes and the treatment of these disorders, we must have in mind the changed conditions of the organism. The pregnant state is characterized by many and varied changes in the general system and in special organs, the most marked of which are those of the uterus, the genitals and mammary glands, but which it is not necessary for us to take time to describe, as they are generally well understood. The changes which bear the closest relationship to our subject are those of nutrition affecting the condition of the blood, the bones, the teeth and the excretions and secretions.

Pregnancy usually exercises a favorable influence upon nutrition; after the third or fourth month the appetite improves, adipose tissue is laid on and the body weight is progressively increased, so that at the completion of gestation it is about one-thirteenth greater than before. Many times, however, the reverse of this is met with; nutrition is so disturbed as to cause considerable emaciation and general debility.

An increase in the salivary secretions is often a noticeable symptom. Ptyalism, when present, manifests itself early and usually disappears spontaneously between the third and fourth months. It occasionally persists, however, in an aggravated form during the entire period of gestation, and even for several weeks after, and the amount secreted may be so great as to endanger the life of the patient. The qualitative changes in the saliva during pregnancy are sometimes quite marked. The water is increased, while the organic and inorganic elements are diminished. Schramm reported one case in which the ptyalin was entirely absent. In those cases in which excessive ptyalism is manifested the buccal mucous membrane is more or less inflamed, the parotid, submaxillary and sublingual glands are swollen and tender, and quite painful when their functions are especially excited. Fetor is not present, and the absence of this symptom distinguishes it from mercurial ptyalism. The cause of this disorder is in all probability a reflex neurosis, and it frequently reappears in successive pregnancies. Gingivitis is another common accompaniment of pregnancy, and is often present when there is no indication of salivation. Pinard is of the opinion that it is more common among multiparæ than primiparæ. This opinion is based upon seventy-five cases, of whom

forty-three were of multiparæ and thirty-two of primiparæ. In the former the disorder was present thirty-one times, in the latter fourteen times. Gingivitis is characterized by redness and tumefaction of the gums, and a tendency to bleed on slight pressure or friction, as in mastication or the use of the tooth-brush; while the secretions of the mucous gland are often decidedly acid in reaction, as may be easily proved by litmus paper. Treatment should consist of saline cathartics and astringent and antacid mouth-washes, and thorough cleanliness of the mouth and teeth.

Phagedenic pericementitis is occasionally present during pregnancy. This disorder is characterized by tumefaction of the gums, which have a purplish tint along the margins, the festoons are swollen and detached from the teeth, and bleed on the least provocation; many of the teeth are loose in their alveoli, from which pus constantly exudes, and in a majority of the cases examination of the roots of these teeth will show them to be more or less covered with calculus, the character of which is still in dispute, some claiming it is salivary, others serumal. After a little time the gums begin to recede from the necks of the teeth, and it is not by any means rare for this disease to progress so rapidly that one or more teeth are lost by the disorder before the completion of gestation. The disease usually persists after delivery, but not with such rapid progress as before.

Odontalgia is generally the result of dental caries which penetrates to the pulp and sets up an acute or chronic pulpitis, or may be caused (as recently stated by Dr. W. W. Allport) by hyperemia of the pulp, due to the augmented volume of blood, increased arterial pressure and capillary hyperemia of the upper half of the body. In proof of this statement by Dr. Allport, I would call attention to the fact that a brisk cathartic will often relieve or entirely control an attack of odontalgia, or a congestive headache.

Many women are in the habit of discarding from their aliment during pregnancy all those foods which contain an abundance of calcium salts, and restrict themselves, as nearly as possible, to a fruit diet, believing that by such practice the bones of the child will be imperfectly calcified, and thus parturition will be robbed of much of its suffering. There is no scientific evidence that such a result is obtained; while on the other hand, as in those cases affected with hyperemesis, though the child when born may be small and much emaciated, it has the appearance of being properly formed and its bones as dense as in the majority of normal pregnancies, and the fact seems to be pretty well established that the osseous framework of the fetus is formed in such cases at the expense of the maternal organism.

The principal exciting cause of caries during pregnancy, as in all other cases, is the ever-present lactic acid fermentation, but its action is greatly augmented by the changed conditions of the salivary and buccal secretions. The acids found in the secretions of the mouth as a result of the disorders incident to the pregnant state, are acetic, hydrochloric, uric and oxalic. Consequently in those cases where the dentine has been rendered abnormally soft—deficient in calcium salts—there is likely to be a very rapid breaking down of tooth structure during pregnancy and lactation.

Long tedious operations, like the restoration of form in decayed teeth with gold, are inadmissible during gestation. All operations upon the teeth at such times should be as free from pain and fatigue as is possible, from the fact that in certain cases miscarriage might be the result. Caries of the teeth can be arrested by the use of temporary fillings like Hill's Stopping, or oxy-phosphate cement, until such time as the patient is in condition to bear the nervous strain incident to large gold operations. Among the most valuable of preventive measures are a thorough and frequent use of the tooth-brush and floss silk at least three times per diem, supplemented by tooth powders and antacid mouth washes.

Fatal Hemorrhage into a Large Goitre.

Dr. Wm. Osler reports, in the *Johns Hopkins Bulletin*, Jan., 1890, the case of a woman who died of hemorrhage into a goitre. The woman was 44 years old, an inmate of the insane department, Philadelphia Hospital, and the subject of goitre for an indefinite and unknown number of years. She was up and about helping at her ordinary work, when she became faint, breathless and blanched, and died within a few hours. The body was well nourished, the skin of marble whiteness. An immense goitre occupied the entire space between the chin and sternum. In the lateral regions of the neck the swell-

ing extended towards the clavicles and below the skin of the upper half of the sternum. On section, a space was opened between the bronchocele and the sternum, containing large clots, which, on dissection, were found to have come from one of the lower cysts of the goitre, which had ruptured. The blood extended into the cellular tissue of the neck and beneath the sternum into the anterior mediastinum, covering the aorta and upper part of the pericardium. The hemorrhage passed behind the pharynx and down the course of the œsophagus for two or three inches. On removal, the windpipe and gullet were found almost completely embedded in the goitre, and the former seemed at its lower part somewhat compressed. There was œdema of the left lateral wall of the pharynx and the left ary-epiglottidean fold. The bronchocele weighed about three pounds, and was of the parenchymatous variety, with much calcareous and fibroid change; here and there were cysts. The thoracic and abdominal viscera presented no special change.

The case illustrates a very unusual accident in the history of goitre. It is well known that hemorrhage frequently occurs into the cysts; but Dr. Osler has not met with an instance in literature where death resulted from it. Whether the woman died directly from the loss of blood or from the mechanical effects of pressure is not easy to determine; probably the latter played the most important part, though the amount of clots beneath the skin in the lateral cervical and sternal regions was considerable, and the extreme pallor suggested death from hemorrhage.

Ligation of Varicose Ovarian Veins.

In the *Johns Hopkins Hospital Bulletin*, Jan., 1890, Dr. Howard A. Kelly reports that on October 17 he operated upon a woman in the Gynecological Department of the Johns Hopkins Hospital. She had long been under his care for the treatment of a retroflexion of the uterus, irremediable by the usual methods of treatment per vaginam. He therefore made an abdominal incision, and raised the uterus out of the hollow of the sacrum for the purpose of performing hysterorrhaphy, by attaching it by the ovarian ligaments to the anterior abdominal wall. Upon bringing the right ovary and tube out of the incision, the ovarian veins were found to be enormously dilated, being a half inch in diameter. They appeared as great blue tortuous distended vessels, extending from the upper angle of the uterus, between uterine extremity of the tube and the origin of the round ligament, outwards under the hilum of the ovary to the infundibulo-pelvic ligament.

While assured that the elevation of the uterus by hysterorrhaphy would be a most important factor in improving the impeded circulation, there still remained an element of doubt as to whether veins so greatly distended could fully recover their normal caliber; Dr. Kelly therefore tied both veins with a single ligature on the right side, and on the left side tied them in two places.

The procedure was an extremely simple one, apparently free from danger. When the tube and ovary are brought out of the incision held well elevated, between thumb and forefinger, an area irregularly triangular is exposed in front of the broad ligament, bounded on its lower inner side by the curved line of the round ligament sweeping downwards and outwards with its concavity downwards and inwards. The upper border of the triangle is formed by the base of the meso-salpinx including the hilum of the ovary. The margin of the abdominal incision connecting the lowest visible point of the round ligament with the outer limit of the meso-salpinx and hilum of the ovary forms the base of this triangle. Within this area the ovarian veins and arteries lie. To tie these veins without danger of puncturing them, one must take a lower grasp of the broad ligament, catching the veins between the second finger and thumb, using the index fingers to press upon, and empty them; the translucent spaces above and below the vessels are thus easily distinguished from the white opaque coats of the empty veins. A ligature can then be passed through one of these clear spaces, piercing both layers of the broad ligament below the veins on the inner or the outer side of the hilum of the ovary. The ligature is again brought through the broad ligament above and tied. In this way the lumen is effectually occluded. The ligatures are cut short and dropped, and the hysterorrhaphy proceeded with. On the outer side of the hilum it is simply necessary to pass the ligature *beneath* the veins, and to tie over the upper margin of the infundibulo-pelvic ligament.

Dr. Kelly's patient has not had an unfavorable symptom since the operation. The uterus lies in a posture of easy natural ante-

flexion. It would be impossible to decide by the examination alone that the uterus had ever been sutured to the abdominal wall.

Whence the pelvic pain arises in these cases it is impossible to say; it is equally impossible to say that these great distended vessels may not play a very important part in the production of the pelvic and lumbar malaise.

Water Supply of Toronto.

In providing for the water supply and the disposal of the sewage of the city of Toronto, engineers have to deal with the problem which is presented by the necessity of drawing the water from and returning the sewage to the same body—Lake Ontario. The water intake is now through a crib fixed at about 2,000 feet from the outer shore of the island that lies in front of the harbor. The engineers who were invited to study the subject and report upon it have reached the conclusion that "for many years to come no objection can arise and no pollution will be observed, if the sewage outfall is placed as proposed, six and one-half miles from the present water intake."

The Transmission of Typhoid Fever by the Air.

It is generally admitted that the transmission of typhoid fever takes place principally through the water supply. Experience, indeed, has proved this to be the case; but—as the *Medical Press* of Feb. 5, 1890, says—it must not be overlooked that other ways may exist, and speaks of introduction of typhoid bacilli by the breathing of air contaminated with the spores. Some observations by Dr. Chour, of an epidemic of typhoid fever among soldiers, commented upon in the *Revue Scientifique*, serve to show the importance of not concentrating one's attention too exclusively upon any one vehicle in the endeavor to prevent the spread of the disease. Two regiments stationed at Jitomir, and supplied with drinking water from the same source, suffered in a very different degree from the disease. The soldiers belonging to the regiment which suffered most severely were quartered in various barracks, and it was remarked that at one particular locality the men were attacked in a far larger proportion than their fellows, who were located elsewhere. In December, 1886, the buildings were evacuated and thoroughly cleansed and disinfected, whereupon the mortality fell to 1.7 per thousand in 1887, and to 0 in 1888. In the other barracks, which had not been thus dealt with, the mortality rose to 22 per 1,000 in 1887, and to 33 per 1,000 in 1888. It occurred to Dr. Chour to institute an examination of the dust from the infected barracks, and he found in it an average of fourteen million microbes per gramme, among which the typhoid bacillus was easily detected. The evacuation of the rooms and their thorough disinfection promptly put an end to the epidemic.

Asylum Physicians not Permitted to Testify.

The *Medical Record*, January 4, 1890, states that Reuben A. Holder, who had been a patient at the New York City Asylum for the Insane for some eight months, had been brought before Justice Patterson at Supreme Court Chambers upon a writ of *habeas corpus*. At an *inquirendo de lunatico*, ordered before Justice Andrews and a jury, the medical superintendent, Dr. Bond, was put upon the stand. The attorney for Holder objected to the doctor's testimony upon the ground that the relation of physician and patient had existed, and was therefore inadmissible under section 834, Code of Civil Procedure. "A person duly authorized to practice physic or surgery shall not be allowed to disclose any information which he acquired in attending a patient in a professional capacity, and which was necessary to enable him to act in that capacity." The Court reserved decision until after recess; and then the objection was sustained. In rendering this opinion Justice Andrews said that during the recess he had conferred with several of his associates, two of whom were sitting at General Term. The same objection was made to the testimony of the examiners who gave the certificates upon which the patient was admitted to the Asylum. This objection was overruled. One of the Asylum attendants was permitted to testify, and this was all the testimony given regarding the patient's mental condition since his admission to the Asylum eight months before.

Under such circumstances it is not to be wondered at that he was declared sane. It did seem something of a farce to see an attendant testify regarding a person's sanity

while the Asylum physicians sat in the court-room, their lips being sealed. This may be just and good law, but for a fair and just scientific inquiry most absurd. Under such rulings all patients might be discharged, regardless of their mental or physical condition, unless the city went to the expense of employing outside physicians to examine the patients. One cannot but wonder if this patient were to bring suit against the city and the Asylum physicians for damages for detaining a sane person in the Asylum the same ruling would hold, and if so, what protection an Asylum superintendent has against such suits.

Investigation of the Influence of Tobacco on Tuberculosis.

The State Board of Health of Pennsylvania is desirous of obtaining authentic information as regards the effect to tobacco smoking, either in promoting or retarding the development of pulmonary tuberculosis or consumption. It has been stated that inveterate smokers are, to a great extent, exempt from the disease. If this is true the fact ought to be made widely known. If it has no foundation it ought to be authoritatively contradicted. The Board has, therefore, through its Secretary, Dr. Benjamin Lee, Philadelphia, addressed a communication to a number of physicians, asking them to report at as early a date as convenient, the results of their own observation and experience in regard to this subject.

Expulsion of the Ovum Entire, Late in Pregnancy.

In the *Weekly Medical Review*, Feb. 22, 1890, Dr. C. W. Fallis, of East Lynne, Ill., says that we have been led to believe that expulsion of the human ovum with its membranes intact, after the third month of pregnancy, is a very rare occurrence, although we have cases recorded as having taken place as late as the sixth month. The following case, however, teaches that it is not impossible for a delivery of this kind to take place much later in gestation. The case is one that came under Dr. Fallis's care quite recently, and is one of unusual interest.

The mother, a stout, healthy-looking primipara, was taken in labor late in the evening of Feb. 2, and Dr. Fallis was not called till the next day, when he was summoned in haste and, on entering the house, was told that the woman was through and "everything is in the bed." Yet no attempt had been made to look after the child, which had not made a whimper, and for good reason, as we shall see. As soon as Dr. Fallis could get ready he made an examination and was not a little surprised to find a loose mass between the mother's thighs, which proved to be the ovum entire, placenta and membranes with their fetal contents altogether in one ovoid sac; the entire contents of the gravid uterus having been expelled in one body. He then removed the fetal mass to a convenient place, and ruptured the membranes, exposing the child, which was a small emaciated female. It was about fourteen inches in length, and weighed about three pounds.

The mother's statement was, that she was between seven and eight months advanced in pregnancy, but judging from the general development of the child, it is probable that she was mistaken.

Although the child was very small, the ossification of the cranial bones, the appearance of the finger-nails, as well as the absence of the lanugo, indicated that it was a fetus of at least eight months, and possibly one not far from term.

There was no known cause for the pregnancy being terminated before the allotted time; both parents were healthy, and the mother had not been sick during the time that she was carrying her child.

The child had the appearance of recent death; it was alive, Dr. Fallis thinks, during expulsion, from the fact that the cord was looped over its right shoulder, and the right arm was in a condition of intense venous congestion. This congestion must have been produced during expulsion, for at no other time would the cord be made tense enough to stop the venous circulation.

Treatment of Fever of Phthisis.

The following formula is recommended by Liebermeister, in the *Bulletin Médical*, Feb. 16, 1890, for the treatment of the hectic fever attending phthisis:

℞ Quininæ sulphatis . . . . . gr. xxxj
Digitalis . . . . . gr. viij
Extract. gentianæ . . . . . q. s.

M. et. fiant pil. no. xl.

Sig. Six to ten pills daily.

NEWS.

—Professor von Nussbaum, of Munich, has recovered from an attack of influenza, which recently endangered his life.

—Dr. F. L. Barnum, of Carlisle, Pa., has been arrested by a postal inspector for sending defamatory matter through the mails.

—Medical Director Robert T. Maccam died, March 21, in Baltimore. He was born in Pennsylvania, and was appointed Assistant Surgeon from New Jersey in 1844.

—Catoni, the Italian giant, who has just died, sold his skeleton last week to an anatomy museum in Rome for $2,000. The money has been paid over to his heirs.

—It is announced that the Senatus of the University of Edinburgh will, in April, confer the degree of LL. D. upon Sir John Kirk, M. D., and Sir Dyce Duckworth, M. D.

—Dr. Wm. H. Triplett, a prominent physician and surgeon, died March 27, in Woodstock, Virginia, aged 53 years. Dr. Triplett was a graduate of the Jefferson Medical College of the class of 1859.

—Colonel A. H. Rogers, of New York, who seems inclined to free all the inmates of the Ward's Island Insane Asylum, procured from the Supreme Court, on March 24, thirty writs of habeas corpus for that number of alleged lunatics.

—Dr. J. S. Dorsett, Superintendent of the State Lunatic Asylum at Austin, Texas, was assaulted and dangerously injured, on March 24, by a lunatic. He was making his usual rounds in the wards when the patient, seizing an iron rod, crept behind him and struck him a blow on the head. Three other blows were struck before the attendants could restrain the maniac.

—There has been an epidemic of diphtheria in Burin, Newfoundland. There is no doctor in the district, and the sufferers were attended by Rev. Father Walsh. Of 40 cases that the priest attended only one proved fatal. The priest took the disease himself, and died after a few days' illness.

—The Meharry Medical College for the education of negroes, held its commencement exercises at Masonic Theatre, Nashville, together with the dental and pharmacal departments of Central Tennessee College for colored people, the night of February 27, 1890. Diplomas in medicine were given to fifteen graduates, in dentistry to two, and in pharmacy to one.

—Professor E. Henoch, of Berlin, celebrates his seventieth birthday on July 16. A committee chiefly composed of Berlin practitioners, has been formed for the purpose of having a bronze bust of the venerable teacher executed, which it is proposed to place in the Children's Clinic of the Charité Hospital. Professor Henoch has been head of that department for the last 32 years.

—The Brussels Academy of Medicine has expressed itself in favor of the establishment of a special asylum for criminal lunatics in Belgium. In this asylum they advise that all insane persons recognized to be dangerous to their fellow-men should be confined, whether they have actually committed a crime or not. Lunatics whose mental derangement manifests itself in outrages on public morality, attempts at rape, etc., are classed as "dangerous."

—The practice of cremation is so largely on the increase that it has been decided to build a new furnace at the cemetery of Père-la-Chaise, Paris. The furnace at present in use is kept burning night and day, a system which permits of the complete destruction of the corpse in less than an hour. It is hoped that with the new furnace the same result may be obtained in three-quarters of of an hour at the most.

—Some weeks ago a collective investigation of the influenza epidemic was organized in Germany at the suggestion of Professor Leyden, of Berlin. A table of fifteen questions relating to the etiology, symptomatology, course, and sequelæ of the disease was issued to all medical practitioners in the Empire. Answers are said to be pouring in in numbers beyond all expectations, and the committee is now considering how best to deal with the enormous material which has been collected.

—The trustees and faculty of the Medical College of South Carolina will hold an election, on or about April 15, for the purpose of filling the vacancy existing in the chair of pathology and practice of medicine. The three years' course of instruction as necessary for graduation has been adopted, to begin with the matriculates of 1890.

DIED.

MUHLENBERG.—Died, at Reading, Pa., February 21, 1890, after a severe illness of two weeks, which she bore with heroic firmness and Christian resignation, Augusta Muhlenberg, wife of Dr. W. F. Muhlenberg, aged 29 years. Three small children survive her loss.

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BY THEOPHILUS PARVIN, M. D.,

PROFESSOR OF OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN, JEFFERSON MEDICAL COLLEGE, PHILADELPHIA.

I begin this morning the seventh year of lecturing upon clinical obstetrics at the Philadelphia Hospital. During my term of service, of three months, the opportunity of delivering some twelve lectures is presented. Go back about a century in the history of medical teaching in this city, and you will find that in the only school then existing the Professor of Anatomy and Surgery, Dr. William Shippen, was also the Professor of Obstetrics. Go back half a century—or at least about that time—and you will learn that in the second oldest school, the Professor of Materia Medica and Therapeutics, Dr. Eberle, was for a short period also Professor of Obstetrics. Dr. Shippen completed his obstetric teaching with twelve lectures. Probably Dr. Eberle did not greatly exceed this number. Now, however, the medical student hears not less than fifty or sixty lectures upon this subject each winter in the college he may be attending, and this instruction is supplemented by hospital teaching; so, that which formerly was taught in a dozen lectures now demands between one and two hundred.

[1] Delivered at the Philadelphia Hospital.

Pointed Abdomen.

Eight weeks ago there was presented to you a woman who had passed seven months of pregnancy, and who offered a curious conformation of the abdomen; the abdominal wall was peculiarly prominent at the

umbilicus, and was what has been appropriately called pointed. When I first saw the patient I was struck with the remarkable resemblance to an illustration in Winckel's great work upon obstetrics, a work which I am glad to say will soon be in the hands of English readers. Upon examining her spine I found a notable curvature of the dorsal vertebræ, a scoliosis. She was delivered a few days since, and as there was delay in the second stage of labor, I was sent for, but being unable to go, my friend, Dr. Davis, kindly took my place. The delay was from slight narrowing of the pelvic outlet, the forceps were applied, and a living child extracted. It was easy to give a probable explanation of the peculiar form of the abdomen before the labor, but it was proved to be true afterwards. Dr. Davis found slight kyphosis, narrowing of the transverse diameter of the outlet, and lordosis of the lumbar vertebræ, the latter change being a not unusual method of nature's compensation for a scoliosis. How then is the pointing of the abdomen to be explained? Simply by the fact that the abdominal capacity was lessened materially by the spinal curvature, and the expanding uterus not having normal space made an abnormal space by stretching the anterior abdominal wall, and this stretching took place where the resistance was least; the resistance was least, of course, at the part most distant from bony attachment.

Macerated Fetus; Abortion occurring in the Sixth Month.

I show you here a fetus with cord and placenta, the fetus having been dead some days before its expulsion, as is proved by its presenting the condition known as maceration, which will be spoken of in a few minutes. The patient was brought in from the street with abortion threatened, means to avert which were vainly tried—one might almost say improperly tried, had it been known that the fetus was dead, for once this event occurs the uterine cavity ought not to be hindered in getting rid of its contents. If a woman retains a dead fetus two or three weeks, the case is said to be one of missed abortion, unless the retention takes place after the completion of pregnancy when the condition is described as missed labor; possibly too, it might be called missed labor, if the fetus, dying after the period of viability, is similarly retained.

Looking at the cord you observe that the twists in it are many, and that these turns are from left to right, that is there is dextrotorsion, while in the majority of cases sinistro-torsion is found. Another fact of interest you notice, that the torsions are more numerous and shorter near the fetus, thus proving that they have their origin in fetal movements. An untwisted cord is altogether exceptional, and indeed, if you take the literal meaning of the word cord, or funis, there can be no umbilical cord which is not twisted, or has no torsions.

A word as to maceration of a dead fetus. If the embryo perishes in the early weeks of pregnancy it may be absorbed, later on it may undergo mummification, maceration, or putrefaction; the last change is impossible if the membranes are unruptured, and air thus excluded. Not long since I read in a medical journal the report of a miscarriage occurring some time after the death of the fetus, and the reporter gave as a proof of what he called "the preservative power of the amniotic liquor," that the fetus had no offensive odor. None of you will be likely to repeat such an error. If it could only be proved that amniotic liquor has such wonderful preservative power, it might be in demand at least for keeping pathological specimens unchanged: but no such demand has arisen, or can arise.

A macerated fetus has a disagreeable, an unpleasant odor, but not—as a putrified fetus—an offensive one, characteristic of animal decomposition. In this macerated fetus, let me call your attention to the blebs here and there upon its surface, while elsewhere large patches of the epidermis have been detached; the exposed corium is swelled, and stained a deep or dark red from absorption of the coloring matter of the blood. In the serous cavities a fluid similarly colored is found. If the process goes on, that is the fetus remaining in the unbroken amnial sac in the uterus, the attachment of bones to each other is weakened so that the latter can be readily separated.

Now I have a word to say as to the management of abortion occurring after the formation of the placenta, for example, in the fourth or fifth month—impressing a lesson upon you that was given me a few nights ago. A woman, in the fifth month of pregnancy, after some weeks of threatened miscarriage, had vigorous uterine contractions with dilatation of the os, and the bag of waters protruded so that it reached almost to the vulva. The practitioner in attendance,

thinking that he would hasten an abortion that had lingered so long, by assisting the process of expulsion, ruptured the bag of waters; but with the escape of the amniotic liquor the pains disappeared, and several hours passed without their return. Had such abrupt arrest occurred when the ovum was entire, and such prolonged absence continued, he would have had no anxiety. Not so, however, when the uterine cavity was open for the reception of infectious germs, the dead fetus ready to undergo putrefactive changes. Wisely he decided that delivery ought to be effected, and I had the opportunity of assisting him. After anæsthetizing the patient and dilating the os uteri, it was found that the head presented, but how was it to be extracted? Further, I found the placenta detached, and there was no hemorrhage, so that immediate emptying the uterus could not have any injurious result. It was not difficult for me, with two fingers, to push the head to one side and bring down a foot, and then the extraction of the fetus was accomplished in a few minutes. Pedalic version is a precious resource in some cases of abortion: this is the lesson which I would like you especially to remember. But let us not forget too, the illustration which this history gives of the great mistake the practitioner makes when he ruptures the membranes in a case of abortion: that rule which scarcely admits of any violation, without more or less severe punishment for patient and doctor, is familiar to you all, but nevertheless a new instance such as the one given, may help to impress it more strongly upon your minds.

Diagnosis of the Death of the Fetus.

A woman was recently delivered of a dead child in the Maternity, the death probably having occurred two or three weeks before, and yet she insisted that she felt its movements at the beginning of labor. You see, therefore, what deception there may be in regard to this sign, both as an evidence of pregnancy and of the child being alive. Quite recently there came to the Jefferson Medical College Hospital a woman in the seventh month of pregnancy, who believed her child was dead because she no longer felt its movements. Careful auscultation was tried with negative result. I could not elicit from the woman a single other subjective sign of fetal death than the one first given—no shrinking of the breasts, no chilliness, no deterioration of health. I might have tested the vaginal temperature, and noticed whether that slight normal increase due to the presence of a living child in the uterus was absent, or whether there was peptonuria, which has been claimed by one or two observers to be found if the fetus was dead. But I determined to try measuring the abdominal circumference, and also the length of the anterior wall, from week to week, believing that if there was a progressive diminution in these measurements, and still no fetal heart-sounds to be heard, I would be justifiable in concluding that the fetus was dead, and in inducing labor. The measurements did show this progressive diminution for two weeks, at the end of which time, no sounds of fetal heart or of fetal movements being heard, nor the latter felt, I felt justified in passing a bougie into the uterus, and in twenty-seven hours a macerated fetus was expelled.

Not desiring to press this single instance too strongly, nor thence to deduce an absolute rule, nevertheless I will state as my belief, that we probably have no more certain or more generally available evidence of the death of the fetus in pregnancy than the constant decrease in the abdominal measurements mentioned. As we will be often misled in deciding as to pregnancy if we rely upon the subjective signs, so by trusting to such signs we may be similarly brought to a wrong conclusion in deciding as to the death of the fetus. We are in need of some reliable criterion to decide this matter, and possibly it exists in the measurements of the abdomen of the mother, laying aside those cases in which wasting disease may cause progressive emaciation.

—The Meteorological Summary for the year 1889, prepared by Professor F. H. Snow, of the University of Kansas, from observations taken at Lawrence, shows that the most notable meteorological features of the year 1889 were the remarkable absence of extremes of heat and cold, resulting in a very mild winter and a very cool summer; the abundant and well-distributed rainfall, making this one of the three wettest years on the twenty-two years record; the phenomenally warm December, whose mean temperature was six and one-half degrees above that of November; the low wind velocity; the small amount of snow; and the unusual number of fogs, averaging a little more than two per month.

TUBERCULOSIS IN PREGNANCY AND PARTURITION.—WEBBED FINGER.—DIFFERENTIAL DIAGNOSIS OF PNEUMONIA IN CHILDREN.[1]

BY EDWARD P. DAVIS, M. D.,

VISITING OBSTETRICIAN TO THE PHILADELPHIA HOSPITAL, ETC.

Tuberculosis in Pregnancy and Parturition.

Gentlemen: I have to show you to-day two cases of lung disease complicating the puerperal state. The first patient is a colored woman who was delivered a short time ago, after a normal labor, of an apparently healthy child. Her history before confinement is not such as to warrant the diagnosis of any lung trouble. Her general nutrition is well maintained, and there is no special wasting; she has, however, complained of one symptom which has aroused our suspicion, and that is cough. This is not excessive, and is not attended with profuse expectoration, yet it is sufficiently persistent to warrant our examination of her chest. When we do this the symptoms presented are slight. In the upper right side of her chest are small râles, with no noticeable dulness. She has a very slight elevation of temperature, and the patient is in a condition when we should watch and suspect, rather than diagnosticate and prognosticate. Her appetite is good. The case, in its mildness, in the time in which it is beginning, in its chronicity, so to speak, has urged me to bring her before you, for our consideration.

The next case is a young woman who was delivered five or six months ago. Previous to her confinement she was suffering with a persistent cough, with considerable expectoration, and with some emaciation. There is no history in either of these cases of the expectoration of blood, but both patients have had night sweats. When pregnancy occurred in this patient there was a temporary alleviation of her condition, with slight improvement. Her child is fairly nourished, and has been fed partly from the breast, and partly from the bottle, owing to a lack of sufficient milk in the breast. Since her labor the patient has felt better, but now the cough is beginning again, with a slight increase. The process in her lungs has been in a latent state, but is now manifesting renewed energy. Investigating the condition of her chest, we find an involvement of the parenchyma of the lungs with, at one point, the evidences of cavity. The patient is not extremely emaciated. At the present time her temperature is probably a fraction above the normal. There is no marked symptom here which would lead me to make a diagnosis without further examination. On questioning, I find that she coughs considerably at night, and expectorates freely; she sleeps poorly, complains of a pain over the left upper portion of her chest under the clavicle, which is aggravated by breathing and coughing. Her tongue is broad, flabby and indented by the teeth; the mucous membranes, while not excessively pallid, are not of the hue and color of health. She has lost flesh, and her baby, she says, has now a cough. It is not hard, from the symptoms up to the present time, to make our diagnosis of tuberculosis.

The former belief was that tuberculosis was improved by the advent of conception, and that with the general hyperemia accompanying pregnancy, the progress of the disease was arrested. When we come to understand the nature of tuberculosis better, we know that this is a great mistake. To the late Dr. Austin Flint belongs the credit of the observation that from ten to fifteen per cent. of all tubercular cases in woman have either their apparent origin, or their time of development, at the period of conception and parturition. Now supposing a woman to be affected by tuberculosis at the period of conception the serious question arises: Will it be possible for her to convey the disease to her offspring? This is a difficult question to answer, but there is at least one well authenticated case on record where a tuberculous mother gave birth to a child infected with tuberculosis while in the uterus, and reasoning from this we believe that the tubercular poison can pass from the mother through the placental villous tissues, and so infect the fetus in the uterus.

When a woman has become infected with tuberculosis either before or after conception, the progress of the disease is frequently arrested at the time of pregnancy. The symptoms all seem to grow less, and the patient becomes more comfortable than before. This amelioration may have given rise to the fallacy I have mentioned. On the other hand, in some cases the advent of preg-

[1] Delivered at the Philadelphia Hospital.

nancy seems to light up the disease afresh, and the patient is hurried to the grave.

The diagnosis of tuberculosis is to be made on a general examination of the case; we cannot pick out any one symptom as pathognomonic. In the two cases I have brought before you I cannot positively make the diagnosis from the small number of symptoms presented, though everything is strongly in favor of the diagnosis of tuberculosis. One of the critical signs of course, is the presence of bacilli in the sputum, and yet there are times when the bacilli are scant in the sputum, and especially when the parenchyma of the lung is involved, but has not yet broken down. An examination of the sputum at this time would not reveal bacilli. Could a microscopic examination of a section of the lung be made at this time, however, it would be found studded with tubercle bacilli, actively at work multiplying and sporulating, and just at the time when the bacilli are scarce in the sputum. The bacilli are especially to be seen around the bronchial tubes. In the case of the colored woman, the examination of the sputum is negative; she has a catarrhal pneumonia of the apex beyond doubt, but I cannot, as yet, say that she has tuberculosis. In the second case, at present the bacilli are also absent, but the symptoms are so characteristic, that we are able to make a strong presumptive diagnosis.

What shall we do regarding the life of the fetus, should a tuberculous mother rapidly fail during pregnancy? The danger is that the fetus in the uterus will become hopelessly infected with the disease if allowed to remain there, and so we are unanimous in urging that as soon as viability is positive, premature labor should be induced. And yet it is a well-known fact that children of tuberculous mothers are weak, and usually die in a few months of inanition or some form of tuberculosis. The chances of the child are slight at the most.

During parturition the tuberculous mother frequently suffers from extreme dyspnœa, with danger of cardiac exhaustion and threatened failure of the nervous system. In such cases we may diminish the irritability of the lungs by the use of an anæsthetic, and reinforce the heart by the use of stimulants. Chloroform is the best anæsthetic here, and labor should be hastened by the application of the forceps as soon as the os is dilated; if greater haste be demanded version may be performed, and in extreme cases the os may be dilated by the Brown's dilators and the fetus delivered.

A tubercular patient having been delivered, it not infrequently happens that an amelioration in her condition is noticed. This, however, is but temporary; we do not know the reason of this, but it may be due to a general stimulation, the result of the hyperemic condition of the patient during pregnancy. Unless the physical signs continue to fail and the improvement continues, we cannot give a hopeful prognosis. The wisest course is to maintain a discreet silence.

Tuberculosis is acknowledged to be contagious; that is, a tubercular piece of tissue if placed upon another healthy piece of tissue will communicate its infection to the healthy part and set up a tuberculous process there. Dr. Trudeau, of this country, has made some experiments upon rabbits, by which he has proved that good hygienic surroundings are of the greatest importance in treating cases of tuberculosis. Reasoning by analogy from his experiment we believe that if the fetus of a tuberculous mother could be placed in good surroundings, there is reason to hope that any tuberculous process which may have been commenced in it before birth may be arrested.

So far as treatment is concerned, of late the merits of creasote have been largely discussed, and the drug has been used with considerable success in a large number of cases. It may be given to a child of six months to a year in one-half minim doses with glycerin and whiskey. The drug is highly recommended, has given the best results of any used yet, and is certainly worthy of trial. The iodoform treatment has also been brought into notice, especially in the treatment of tuberculous joints and glands. In oil or ether and injected into the joint, it often does good, but its use has at times been followed by disastrous results.

When we come to consider the moral side of the question we reach a point that is difficult to discuss; beyond any controversy, we are firm in believing that women showing a strong tuberculous tendency should be forbidden by law to marry, and when our civilization authorizes the formation of such a law, the health of the race will be vastly improved. The intra-uterine tubercular infection may remain latent for some time after the birth of the child, but sooner or later the tendency will make itself known. A nursing child should be weaned as soon as it is known that the mother is tubercular,

or else given to a wet nurse. If any symptom of the beginning disease can be detected in the child, it should be trained to deep inhalation of the purest atmosphere, persistent feeding upon fats, such as mutton and beef, with alcohol, together with the prolonged administration of creasote in steadily increasing doses. Careful examination of the joints and body for commencing tubercular processes should be made, with prompt extirpation of the part infected when possible under antiseptic precautions. In this way the disease may be eradicated from the body. The first symptoms to attract our attention are the emaciation from lack of proper nutrition, and a peculiar waxy appearance of the child which is often the precursor of meningitis.

Webbed Fingers.

I wish to show you now a baby who has had an operation performed upon its hands. The fingers of both hands were webbed; the anæsthetic used was chloroform, which gave to the child no inconvenience whatever. The operation consisted in severing the bridle of skin and making a careful dissection. A solid web nearly the whole length of the finger was cut away, a dressing was placed between the fingers to prevent further adherence, and a splint was placed under the fingers to act as a support. On the other hand, where the web was complete, a seton has been pushed through the upper portion of the web. If instead we had operated upon the whole web at one time, making a complete dissection, we should have risked the chance of having a contraction at the point of the operation. To avoid this, we must first secure a little interval of healed tissue, in this way preventing any contraction or reunion of the fingers. The operation consists in piercing the upper part of the web with a bistory, and inserting a piece of iodoform gauze.

Catarrhal and Croupous Pneumonia.

I desire now to call your attention to the differential diagnosis between catarrhal and croupous pneumonia in children; several cases having recently occurred in our nursery. Catarrhal pneumonia in a child is characterized by an anomalous course. The temperature is irregular with marked exacerbation and remissions. Croupous pneumonia, on the other hand, runs a regular course of five or six days, the patient then dying or recovering; there is nothing hesitating about this disease. The prognosis of croupous pneumonia is very good, while that of catarrhal pneumonia is dubious. The latter begins as a simple catarrh of the bronchial tubes, along which it travels, plugging up the smaller tubes and producing a semi-consolidation of portions of the lungs. These areas of consolidation are not permanent, but change from place to place, in this way giving rise to anomalous temperature. In croupous pneumonia the lung is flooded by an exudate which fills the lung, and the child for a time is very sick. In catarrhal pneumonia, on the other hand, while the child is very ill, the disease is a long one, and the child is continually ailing; and, at length, either recovers or dies of exhaustion. The cases we have in the ward are catarrhal pneumonias which have followed the usual course, one day weak and exhausted and suffering with gastric catarrh, the next day better, and the next showing an exacerbation of the disease.

We had recently a case where the respiration was 96 in a minute. The temperature chart, which I show you, is quite irregular, not typical of any disease, with variations due to the constant shifting of the disease from one part of the chest to another.

COMMUNICATIONS.

TREATMENT OF SYPHILIS BY INTERNAL USE AND INTRAMUSCULAR INJECTIONS OF THE SALICYLATE OF MERCURY.

BY CHARLES SZADEK, M. D.,

KIEFF, RUSSIA.

Although comparatively only a brief period has elapsed since this new therapeutic agent has been introduced as a remedy for syphilis, it has already attained a wonderful reputation. The use of salicylate of mercury in the treatment of syphilis and skin diseases dates from 1887, the year in which it was tested by *Silva Aranjo*,[1] of Rio de Janeiro, in Brazil. He claimed for it excellent results by internal and external use. The drug is well borne by the stomach: In the doses indicated (25 milligr.—about 3/8

[1] *Silva Aranjo.* El salicilato de mercurio y sus applicaciones en la sifilis y en algunas dermatitis. *Revista de medicina y farmacia*, 1887, II. 2, pag. 12–14.

grain) gastralgia, enteralgia, diarrhœa or stomatitis is never produced. Externally administered, it presents the great advantages of causing rapid cicatrization of mucous patches and all ulcerative processes; it furthermore causes reabsorption of non-ulcerating papules, tubercles and gummata. In parasitic dermatoses the salicylate of mercury offers the advantages over other preparations of being without odor and non-irritant. It is efficacious in the most inveterate forms of syphilis, and the author believes it will soon replace the other preparations of mercury. Associated with gynocardic acid it has given excellent results in blenorrhagia and in the treatment of lepra.

Shortly after reading of the observations of *Silva Aranjo*, I began to use salicylate of mercury internally and subcutaneously in the treatment of syphilis, and externally in venereal sores and gonorrhœa; and in a paper published in the *Monatshefte für praktische Dermatologie*, 1889, I mentioned in what manner I have used it and with what results, in the following terms: "Salicylate of mercury as an antisyphilitic remedy is not less active than the hitherto employed preparations of mercury; it is well adapted to the treatment of secondary syphilis and also administered internally, in the form of intramuscular injections, causes the rapid disappearance of the syphilitic symptoms, and is also very useful in the after-treatment of the disease. Contrary to what occurs with other mercurial preparations, the remedy produces no unpleasant local effects, and no symptoms of irritation or of systemic disturbance follow its use; in this respect it possesses a great advantage over the other mercurials. The external use of salicylate of mercury is very useful in various forms of syphilitic infiltration, causing their resorption; it also acts favorably in acute and sub-acute gonorrhœa: the secretion rapidly diminishes in amount and other inflammatory symptoms subside."

At that time, I would add, I regarded salicylate of mercury as being only a good antisyphilitic agent. From 1888 until 1890 I continued to make hypodermic use of the salicylate of mercury from time to time, and I supposed that we had discovered in the employment of this drug a very valuable addition to our usual medicinal means of treating syphilis. I have administered the remedy very frequently in syphilitic diseases, and usually with marked beneficial effects. The good effects of the salicylate of mercury in the treatment of syphilis were also observed simultaneously by other observers in Germany, Austria, Sweden, Poland and Russia.

I do not wish to dwell on mere bibliographical research, and to refer to all the observations which have been made in regard to the salicylate of mercury treatment of syphilis. Suffice it to say, that it has been largely praised; that several late observers, notably *Plummer*,[1] *Epstein*,[2] *Zeising* and *Jadasohn*,[3] *Hahn*,[4] etc., are inclined to regard it as a convenient remedy for intramuscular injections in syphilis; *Welander*,[5] *Petersen* and *Tschistiakoff*[6] also expressed satisfaction with the results which they obtained from it; *Neumann*,[7] after an experience of its use with twenty-one patients, reported favorably. Finally, I would like to add a word of praise for that very distinguished syphilographer, Professor Dr. *Ernö Schwimmer*,[8] of Buda-Pesth, who has given corroborative testimony which, to my mind, has increased the importance of the salicylate of mercury as a valuable therapeutical addition to our ordinary arsenal for the relief of syphilitic patients.

My personal experience with the new drug is as follows. At first I gave it internally in the form of pills; and it was well borne and did not interfere with the digestion. In some cases the treatment was continued for six or eight weeks, without producing colic or other disagreeable symptoms. In my judgment, whenever salicylate of mercury is prescribed internally, it should be taken, at least at the commencement of treatment, in small or moderate doses. These doses should be continued a long while, or only gradually increased. If an attempt be made, especially at first, to take large doses of salicylate of mercury, in the majority of cases stomachal intolerance will soon follow, and we shall be obliged either to diminish the amount prescribed, or lessen the fre-

[1] Viertelj. f. Dermatologie und Syphilis, 1888, 5, pages 663–683.
[2] Monatshefte f. practische Dermatologie, 1888, 19, pages 995.
[3] Viertelj. f. Dermatologie und Syphilis, 1888, 5, pages 781–819.
[4] Archiv f. Dermatologie und Syphilis, 1889, 3, pages 317–337.
[5] Archiv f. Dermatologie und Syphilis, 1889, 4, pages 453–459.
[6] Monatsh. f. practische Dermatologie, 1889, viii, pages 376, 377.
[7] Wiener medicinische Wochenschrift, 1888, 47, 48.
[8] Gyógyászat, 1889, 2; Pester medizinisch-chirurgische Presse, 1889, 14.

quency of doses, or to abandon the treatment altogether for a time. The daily amount of the salicylate of mercury, prescribed internally by me for adults in private practice, has varied usually from ½ to 2 grains, and continued frequently two or three months without increase, or interruption, or any evidence of intolerance. The ordinary dose of ¼ to ½ grain is repeated two or three times daily, according to the following formula:

℞ Hydrargyri salicylati . . . . . gr. vi–x
Extr. acori (or extr. et pulv. glycerrhizæ . . . . . q. s. ut ft. pill. No. xx
Sig. Take 3 pills daily.

I have used the salicylate of mercury interiorly in *twenty-two* cases of secondary syphilis, of which eighteen were fresh cases and four were old; the luetic lesions consisted of maculæ and papulæ, and also pustules and ulcers. The therapeutic effect was perfectly satisfactory; the eruption began to fade away in the course of from eight to twelve days, and the cure was completed on an average in thirty to forty days.

In another series of cases of syphilis I have administered intramuscular injections of the new drug suspended in water:

℞ Hydrargyri salicylati . . . . . gr. xvi–xxiv
Mucilag. gummi Arabici . . . . gr. viii
Aq. distillatæ . . . . . f℥ vss
M. ft. susp.

Of this one Pravaz syringeful was injected at a time, and this was repeated at intervals of three days. I selected for injections the gluteal region, where I injected the drug deeply beneath the muscular fasciæ. The total number of cases in which I have used injections of the salicylate of mercury are forty-two; the number of injections made in an individual case varied between four and twelve. The total number of all injections was three hundred and seventy-four. Of the forty-two cases treated in my private practice, there were twenty-two cases of secondary syphilis in the first stage; twelve cases of secondary syphilis in the stage of recurrence, and eight cases of tertiary syphilis. Of the whole number of cases, thirty-nine were males, only three were females. The time during which these cases were treated varied from three weeks to two months. The therapeutic value of the salicylate of mercury was especially remarkable in syphilitic affections of the skin and of the mucous membranes; syphilitic rash and slight relapsing forms yielded to the treatment in from two to four weeks.

The local reaction was very little—even less than after the use of calomel and of the yellow oxide of mercury. In no case did an abscess form, either at the point of injection or in its vicinity. Infiltrations were rare; and the more pronounced symptoms of hydrargyrism have never been developed by injections of the salicylate of mercury.

I am convinced, in view of what I have seen, the proofs of which I have stated, that we have in the salicylate of mercury a remedy of great value for internally and hypodermic use in the treatment of syphilis, particularly during the secondary stage of this disease. In my experience the new drug has proven itself superior to any other insoluble preparations of mercury.

2 Theater Street, Kieff, Russia.

PUERPERAL FEVER.

BY LLEWELLYN ELIOT, M. D.,
WASHINGTON, D. C.

Puerperal fever or, as it should be called, puerperal septicemia, has been and is still a subject of discussion by obstetricians. Even the name of the disease is unsettled; for it is called a peritonitis, a phlebitis, a metritis, a metro-peritonitis, or a peculiar disease which only affects women at the lying-in period. According to my understanding of the disease, it is a septic infection, just the same as surgical pyemia or septicemia, and is not restricted to the puerperal state. The disease has been known and recognized since the early days of obstetric art, and at all times has been attended with a high rate of mortality. Wherever the disease has appeared it has been extremely difficult to prevent its spread. Very many times it has spread in spite of all preventive measures that have been adopted; lying-in hospitals have been closed and advocates for abolishing them have been active. To abolish, or even to close a lying-in hospital because puerperal septicemia has developed within its walls, would, in my opinion, be a short-sighted course to pursue. It would be far better to change the medical attendants and their methods.

Puerperal septicemia arises either autogenetically or heterogenetically: the woman either infects herself, or becomes infected

by the absorption of septic matters, brought in contact with a wounded generative tract.

The origin of the disease in cases of self-infection, is the retention of portions of the placenta, blood-clots or a putrid fetus; and the point of absorption is at the placental site, as a rule. The lochia become fetid from its admixture with these substances and, it may be supposed, adds fuel to the already present septic process. Heterogenetically, puerperal septicemia may arise from the influence of cadaveric poisoning, but, I think, only from the dissection of dead from puerperal diseases; as I have gone from the dissecting-room to a confinement with no other precautions than washing the hands.

As regards erysipelas as a cause of this disease, I believe that an erysipelas of the uterus, at the placental site or in the generative tract, is first produced, which in turn resolves itself into the septicemic process. I do not admit the scarlatinal origin of this disease, nor do I admit sewer-gas as a factor in its production. The term "sewer-gas" like that of malaria is too often pressed into service, but it does not cover the ignorance or the carelessness of obstetricians and their nurses. In lying-in institutions, the contagium of this disease is carried by means of the nurses, by sponges, bed-pans, syringes, catheters, sheets or the hands.

In a practice of sixteen years, both private and hospital, it has been my misfortune to encounter puerperal septicemia but once, and I am free to confess, that I was at fault, in not thoroughly emptying the uterus. In this case, by some unfortunate accident, a strip of the placenta was left in the uterus. In time a chill, followed by high fever, appeared; the lochia became fetid and then suppressed. Syringing and the administration of antipyretics failed to relieve these symptoms. Vaginal examination revealed the presence of this strip of the placenta, and after its removal things assumed another aspect, and my patient made a good recovery.

The influence of sewer-gas and defective plumbing I have already denied generally; I will now state my grounds for this denial. We must go back to my hospital practice. At the Washington Asylum Hospital, where I resided some years as Resident Physician, we had two lying-in wards; one of which was for the white patients, and was large enough to accommodate four patients. This ward was divided by a partition with a communicating doorway. The other ward was larger, and designed for colored patients; it accommodated seven patients. The water-closet and bath-room of this ward (for colored patients) was situated at the south-east corner of the building and in size was about ten feet square; its floor was covered with a slatework and was generally wet; the closet was old-fashioned and emptied into a wooden-box sewer. At all times it was difficult to keep the air of the ward sweet, but much more so when the sewer became clogged with wads of paper and rags, which ignorant patients would invariably throw into the basin; or when the water pipes would freeze. At one time there were sixteen patients in this ward, the beds were so close together that patients had to be questioned from the foot of the bed, and during a labor the two adjoining beds were placed in the main aisle. This ward, previous to its being used as a lying-in ward, had for years been one of the general wards of the old Almshouse Hospital of Washington, and had contained cases of typhoid fever, pyemia, diphtheria, wounds, amputations, and fevers generally. Consider now the previous history of the ward, the condition of the sewerage and plumbing, the overcrowded condition, the number of recently delivered patients, and their degraded moral and physical condition, and then tell me why no case of puerperal septicemia developed. We used no antiseptic injections, no washing with solutions of the bichloride of mercury, no especially prepared antiseptic pads to absorb the discharges, and none of the fashionable fads of the present day; still we had no case of septicemia. While we used none of these things, what precautions did we take to prevent the appearance of this dreaded disease? Our measures were few, and consisted in clean beds for the patients, clean hands for the doctor and the nurse. As soon as delivery was completed, the uterus was emptied thoroughly of placenta and blood clots, and firm and permanent contraction was secured, before the application of the binder, by pressure and the administration of the fluid extracts of ergot in drachm doses as often as was necessary to secure this state of contraction. Immediate perineorrhaphy had no place; except in extreme cases, repair of a lacerated cervix following delivery was never done and an injection of carbolic solution was rarely given. The cry of "wolf at the door" was seldom heard, and when heard it was owing to some misinterpretation of symptoms by nurses or

by other patients. This same course I follow in private practice and still declare a freedom from the disease. Why this should be, I attribute solely to the course I pursue in emptying the uterus and securing its permanent contraction.

EPIDEMIC CATARRHAL FEVER.[1]

BY M. F. SQUIER, M. D.,
NEWARK, N. J.

Known and described by the earliest writers of medical literature and having prevailed at various times in most parts of the habitable globe, epidemic catarrhal fever has synonyms without number. No nation has been willing to acknowledge its origin within its own territory, and in many parts of Europe the names given the disease have been suggestive that it originated elsewhere. Thus, in Russia it has been called Chinese Catarrh; in Germany and Italy, "the Russian Disease;" in France, Italian Fever. First called influenza in Italy—the Italian for influence—because it was attributed to "the influence of the stars." This was in the seventeenth century and has since been in general use. In 1743 it was first called "*la grippe*" in France, from the Polish "grypka," and the term is now almost universally used in speaking of the disease.[2]

In systematic works it is described as Epidemic Catarrhal Fever, and this term conveys a more distinct idea of the nature of the disease than any other. Always appearing as an epidemic, the exact spot on the earth's surface whence it originates has never been located. Two opinions have generally prevailed: one is, that every epidemic has one unknown source whence it spreads. The other opinion is that it has no special place of origin, but may arise anywhere.

That it is not influenced by any atmospheric condition seems certain. It has prevailed on every soil, at all seasons of the year, and at all temperatures: in a dry atmosphere, as well as moist, and on the sea itself, without apparently being influenced by either. If there be any special atmospheric conditions which invariably attend epidemics of this disease, they have yet to be discovered.

Its relation to other epidemic diseases has never been satisfactorily traced, though often attempted. That it has a specific agent of some kind no one can doubt; that this agent is the same wherever may be its origin, in successive epidemics, seems certain.

The air must be the medium by which it is conveyed; as it travels too rapidly to be considered in any other manner.

Every phenomenon points conclusively to the influence of some powerful depressing agent acting on the nervous system or entering the blood. The sudden seizure in a large proportion of cases, the extreme prostration following almost immediately and to a degree disproportioned to the local disturbance, the fact that all the organs are more or less affected, and the great debility that follows even the simplest forms, gives indisputable evidence of its toxic power.

If we accept the germ theory as applicable to this disease, it must certainly differ materially from all others with which we are familiar; as it seems to be unaffected by atmospheric conditions or temperature, and does not spread by contagion. On this latter point we are not absolutely certain; but observation does not seem to lead to any conclusive evidence that the disease is communicable from one individual to another. In many essential points it is so like our familiar and ever present malaria, that we cannot but believe that there is a close relation existing between them.

The epidemic through which we have just passed appears to have been very similar to the last one which visited this country, in 1847. First appearing in Europe and rapidly spreading, it reached our shores during the month of December, and when we were scarcely aware of its advent, it was in our midst. It was no respecter of persons; the doctor himself was often an unwilling victim and obliged to acknowledge "the grip;" while patients, more numerous than ever before, were obliged to seek elsewhere for relief.

Fortunately a majority of the cases were of the simple form of catarrhal fever, without any serious complication, and recovered in from three to five days; but in this form relapse was frequent. When the respiratory tract was invaded we were not long in discovering that we had a serious complication that demanded prompt attention, and even then caused grave apprehensions for days. Such acute attacks of capillary bronchitis in

[1] Read before the Practitioners' Club.

[2] See Editorial in MEDICAL AND SURGICAL REPORTER, February 22, 1890.

adults are rarely seen ; and yet most of them made good recoveries after about ten days. Pneumonia was alarmingly frequent and fatal ; but mostly occurred as an acute disease, running a rapid course, no doubt influenced by the presence of a specific agent, probably operative in inducing the attack.

On the other hand, the modifying influence noticed in previous epidemics on the continued fevers was apparent. A patient in the third week of typhoid fever, whose temperature had been from 104° to 105° for several days, and with very grave symptoms of impending collapse, was attacked with chilly sensations, followed by cough and sore throat. Twelve hours after profuse perspiration, the temperature fell to 100°, and the patient convalesced more rapidly than any case I ever saw after a protracted illness. Children seemed to be almost exempt, or if attacked were only slightly affected. Capillary bronchitis was less frequent than is usual in infants at this season of the year. In my experience persons suffering from chronic catarrhal bronchitis and asthma appeared to be less affected than those in perfect health.

That this epidemic in its active form has now passed seems assured. None of us may ever see its like again ; but with the sequelæ we have much still to do. Neuralgic headaches, periodical in occurrence, are frequent. Anti-periodic remedies in full doses have but little effect for days. In one case sixty grains of quinine, administered in twenty-four hours, had but a slight modifying influence upon the paroxysm.

Many cases of bronchitis, with a very troublesome dry cough, expectoration glairy or entirely absent remain to be treated. The ordinary stimulating expectorants do but little good, and sedatives give only temporary relief. No doubt the foundation for many cases of chronic pulmonary disease will be the inevitable result.

From the past months' experience with epidemic catarrhal fever we arrive at the following conclusions : In its simple uncomplicated form it is not a disease of much importance, and it readily yields to treatment. Complications frequently occur, and often assume a very serious and fatal form. Without these complications it is doubtful whether the disease ever proves fatal directly from the depressing effect exerted upon the nervous system, except it might be in the very aged or those enfeebled by chronic disease. That our unprecedented death-rate during the past month was largely due indirectly to this disease there can be no doubt.

Scientists are now much better equipped than ever before, and no doubt many bacteriologists have been closely studying this disease. Indeed, according to latest report, Professor Weichselbaum, of the Vienna University, has already laid claim to having discovered the bacillus present in this disease, which he describes as similar to that present in pneumonia, but still distinctly different.

In conclusion I quote from an article on epidemic influenza which has just come to my notice in the last issue of a medical journal. The writer says : "It seems unfortunate that a term generally understood to indicate a mild disease should have been applied to one which has brought such serious effects. Although we read of an increased death-rate abroad, where the so-called influenza prevailed, it was difficult to realize that, in '*La Grippe*,' a very formidable enemy to health was again in power. During the height of the epidemic the death-rate was higher than it had been for years in this city (New York). The disease, while not apparently directly fatal, led to serious complications in other diseases or to the development of fatal maladies."

From these expressions it would appear that the writer's observation and experience was very similar to our own.

TREATMENT OF ASTHMA WITH STRYCHNINE AND ATROPINE HYPODERMICALLY.[1]

BY THOMAS J. MAYS, M. D.,

PROFESSOR OF DISEASES OF THE CHEST IN THE PHILADELPHIA POLYCLINIC.

Asthma is essentially a spasmodic neurosis of the pneumogastric nerves. Its characteristic symptoms are : its sudden onset and subsidence, its proneness to recur during the night, the sense of oppression in the chest, the short, dry, wheezy cough, the marked dyspnœa, the fear of moving on the part of the patient, his utter misery, and his complete transformation into apparent robust health as soon as the attack is over. The

[1] Abstract of one of the Evening Lectures given by the Faculty of the Philadelphia Polyclinic in the course of 1889 and 1890.

paroxysms may be rare at first, but tend to appear more frequently and to last longer, until finally there is no complete intermission between them.

The exciting causes of asthma reside either in or outside of the lungs. Dust, or any other offending material suspended in the air which, on being inhaled, produces irritation in the sensitive nerve endings of the bronchial mucous membrane, are among the most common causes. The causes outside of the lung may reside in the nose, stomach, liver, intestines, uterus, etc., or in some specific cachexia. It is noteworthy that disorder of all the organs which are supplied by branches of the pneumogastric nerves are most liable to excite an attack. It is doubtful, however, whether, without the peculiar predisposition, any degree of disorder in any or in all of these organs would have the power of inciting an attack.

The aim of treatment is (1) to alleviate the severity of the attack, and (2) to prevent its recurrence. To achieve the former atropine, morphine, lobelia, stramonium, chloral, chloroform, nitro-glycerine, nitrites, pilocarpine, etc., have been used ; and various measures have been employed for the purpose of breaking up the abnormal causal connection which exists between other organs and asthma, as well as to allay the irritation in the lungs. It must not be forgotten, however, that a general lowering of the nerve tone of the body is often as much the cause of disease in other organs as it is of asthma in the lungs, and hence by invigorating the nervous system the asthma, as well as its concomitants, disappear.

The possibility that strychnine given hypodermically might be of value in treating asthma, was first suggested to me by the good results which were obtained by Dr. Echeverria in the treatment of epilepsy with this alkaloid. Asthma is closely allied to the latter disease, and that which benefits the one should also benefit the other—at least on theoretical grounds. I have been using strychnine daily in treating asthma during the last six months, and I believe with more prompt and more definite results than can be obtained with any other drug. My earlier cases were all treated with strychnine alone ; but from a varied experience, I think that the addition of atropine enhances its action somewhat : at least in old and stubborn cases. Below appear the histories of some of the cases which were treated with these agents. The first three were treated with strychnine alone, and the last three with strychnine and atropine.

I begin with one-fiftieth of a grain of strychnine, and one-one hundred and fiftieth of a grain of atropine daily, gradually increasing the strychnine to one-twenty-fifth or one-twentieth of a grain, and the atropine to one-one hundredth of a grain. After a thorough impression is made on the disease, the drugs are administered every other day, and as the patient improves are gradually abandoned. While some cases get well under this treatment alone, in others necessity demands that the influence of these agents be fortified by efforts which seek to control the causes of the attack, as well as by measures which help to build up and fortify the general system.

Case 1. Male, aged 25, first seen October 12, 1889. For some time he had had a constant cough and nightly attacks of shortness of breath. The attacks came on suddenly about midnight, and subsided in a few hours. He had sibilant and mucous râles over the whole chest. I administered one-fiftieth of a grain of strychnine hypodermically. He had no attack the following night, and slept well. The cough also improved. He received daily injections of the same dose for three days. Afterwards this was increased to one-twenty-fifth of a grain every other day. By October 24 the physical signs had all disappeared, and the man was discharged. He received nothing but strychnine.

Case 2. Female, aged 30, consulted me November, 1889. She had had occasional attacks of asthma since girlhood. Five years ago her ovaries were removed, and since that time her asthma is decidedly worse, recurring nearly every night at the present time. She also coughs and expectorates a good deal. Very little physical evidence of disease was found in her lungs. She was placed on strychnine injections, at first every day and in doses sufficient to impress the system. Her attacks gradually diminished, and she had no return of them for six weeks, after which she failed to report. In addition to the strychnine she received cod-liver oil and phenacetine, the latter in four-grain doses three and four times a day.

Case 3. Male, aged 30, came under observation December 1, 1889. He had suffered from asthmatic bronchitis for a number of years. The attacks of asthma appear nightly and are preceded by cough and expectoration. He is compelled to sit up for several hours during every paroxysm. The

cough sound simulates that of pertussis. The patient is losing flesh. There is no dulness, but his lungs abound in fine râles towards the base of the chest. The strychnine injections relieved the cough, and shortened the duration of the dyspnœa in a very short time. In the course of four weeks he considered himself well, although there were still some râles at the base. Besides the strychnine he received quinine, iron and ammonia.

Case 4. Male, aged 31, plasterer, first seen November 14, 1889, when he gave the following history: Cough for five or six years, yellow expectoration and sudden attacks of shortness of breath, which usually come on about 3 or 4 o'clock in the morning and sometimes continue for two or three days, and which during last year became more marked than before. Is unable to follow his vocation. No dulness. Sibilant and mucous râles over the whole chest. He received one-thirty-third of a grain of strychnine and one-two-hundredth of a grain of atropine hypodermically. November 20, dyspnœa on exertion improved; has had no attack of asthma since the first injection; says he feels better than he has for the last two months. Before he received the injections he was compelled to inhale the fumes of a "patent remedy" every morning before he was able to rise; this is no longer necessary. The injections were continued nearly every day until November 30, when he felt able to go to work. Was seen December 19. He has been at work ever since, and, with the exception of two slight attacks, he has had no return of asthma. I prescribed hypophosphites and no more injections. March 14, 1890, he reports that he has had no asthma since December last. He sleeps well, his cough is slight, and he is able to follow his trade during the winter season for the first time in two years. Chest clear of râles excepting a few at the base.

Case 5. Male, aged 37, had asthma since he was a child. His father died a drunkard, and the patient is addicted to alcoholic excess. October 17, 1889, he received one-fiftieth of a grain of strychnine about every other day until November 16, with but slight amelioration in his condition. On this date he received strychnine, one-twenty-fifth of a grain, and atropine one-one-hundredth of a grain. After this time the attacks abated somewhat, and in the next six weeks he had but one slight attack. He occasionally drank too much liquor while under treatment. At this period I lost sight of him and am unable to say how he is at present.

Case 6. Male, aged 51, clerk, was first seen December 2, 1889. He had had asthma for thirty years and daily attacks during the last ten years. Cough and dyspnœa were constant. Has been unable to lie down to sleep for eight years, but spends nearly all his time sitting with his elbows propped on the arms of his chair. The only relief he has is from smoking "Jamestown weed." His appetite is good, his bowels are irregular and his stools are changeable in color. He passes about half a pint of urine in twenty-four hours. He has itching over the whole body. He has much distress in the præcordia, and dropsy of the abdomen, scrotum and legs. His legs and abdomen are swollen so much that he is unable to wear his former-sized trousers, and the dropsical serum oozes so copiously through the skin below the knees that his drawers and socks become thoroughly saturated and have to be changed two or three times each day. He has no dulness over the lungs, but marked blowing inspiration in the apex of the right lung. Large and fine mucous and sibilant râles abound over the whole chest. There is about one-tenth, by bulk, of albumin in his urine. His weight is 108 pounds. His mother and a brother died of asthma. Strychnine and atropine were given, at first daily, afterwards every other day. To relieve the dropsical effusion and constipation, concentrated doses of magnesium sulphate were alternated every other evening with doses of sodium phosphate. He also received seven and a half grains of antipyrin, one grain powdered digitalis leaves, and one grain quinine, every four hours. On December 13, the albumin had entirely disappeared from the urine and the dropsy was very much improved. The man passed two pints of urine and his stools were normal in color. December 24, he had had no asthma since treatment began, and was able to lie down and sleep a whole night without waking. He was taking the antipyrin, digitalis and quinine only three times a day. He now began taking cod-liver oil. January 17, 1890, he felt very well. The abnormal physical signs had all disappeared from his chest and there was not a trace of dropsy. *March* 18, 1890, he had had no asthma since he was under observation. His weight was 114½ pounds.

Experience with the hypodermic use of

these drugs in a number of other cases of asthma which I have under observation at the present time convinces me that they are a valuable addition to the armamentarium of asthmatic therapeutics. Not only have I used these agents in asthma, but I have also found them useful in treating other forms of cough and dyspnœa.

Reports of Clinics.

PENNSYLVANIA HOSPITAL SURGICAL CLINIC.

DR. JOHN ASHHURST, JR.

Lacerated Wound of Foot. Traumatic Fever.

The patient was a boy, eight years old, who had been run over by a cart on the day before. There was a lacerated wound of the sole of the foot, about two inches in length, and another of the dorsum, about three and a half inches long. This was associated with an extensive crushing of the tarsus and metatarsus. Part of the bones were removed on admission, and a drainage-tube was inserted from the upper to the lower wound. A few stitches were inserted. The child rapidly developed a high fever—up to 103°, with delirium and spasmodic twitchings of both arms and legs. There was no locking of the jaws, or opisthotonos. The stitches were removed to reduce the tension upon the parts. A dose of five minims of the deodorized tincture of opium was given and repeated once, and one-tenth of a grain of morphia was twice injected hypodermically, the last injection giving the patient four hours sleep. He was given a saline diaphoretic—citrate of potassium with sweet spirits of nitre; and an ice-bag was applied to his head. The limb was wrapped in lint, wet with a mixture of equal parts of alcohol and of a 1 : 2000 bichloride solution. The wound was irrigated with a 1 : 3000 bichloride solution, and was allowed to gape widely. Under this treatment the fever abated rapidly, and the wound presented a healthy appearance.

Cicatricial Deformity of the Hand.

The next patient was a young woman who had had both hands caught between hot rollers, resulting in a burning and crushing wound. These healed with marked deformity. She returned to the hospital some time afterwards, because of the deformity and loss of power in both hands. The fingers had grown together, and Dr. Packard operated upon the left hand with considerable success, and upon the right hand without attaining the same degree of success. She had now come back for further relief.

Dr. Ashhurst removed the ring and middle finger, which were useless, and took from them a flap to cover the surface of the palm, where the tension of the cicatrix had prevented healing. The operation was a tentative one, and was undertaken in the hope of securing a fairly useful hand.

Mammary Abscess in the Male.

This is a rare condition in the male. No history of injury to the gland was given. The abscess was below the nipple, in the lower portion of the gland, and had lasted about eight days. The size most abscesses attain in the male is much less than in the female, because of the rudimentary condition of the gland. The treatment is the same. An incision was made in a line radiating from the nipple to the circumference, thus avoiding a division of the lacteal ducts which in the female might result in a lacteal fistula. The evacuation of pus was assisted by gentle pressure with a wet sponge. A poultice was applied next. After the discharge ceased, strapping by adhesive plaster would be resorted to.

Hemorrhoids and Fistulæ. Stricture of Rectum.

A colored man was the next patient. He had been operated upon before for fistulæ. The condition was found to be due to a malignant stricture of the rectum. The sinuous tracks were slit up, and the redundant portions of flesh were removed, to secure a more open wound. The tracks were also scraped.

Stricture of the rectum was described as malignant and non-malignant. The non-malignant variety, Dr. Ashhurst said, could be relieved by the use of bougies. Malignant disease of the rectum does not, as a rule, produce occlusion of the bowel. If it should, colotomy ought to be performed.

CHOLERA IN ASIA.—The Russian Government has sent Dr. Avedik Babajew, who is the head of the Sanitary Department at Tiflis, to Persia, to report on the cholera in that country.

FOREIGN CORRESPONDENCE.

LETTER FROM BERLIN.

BERLIN, February 7, 1890.

Typhoid Fever Bacilli in the Urine.—Phenacetin as an Anti-rheumatic.—Sub-benzoate of Bismuth, a substitute for Iodoform.—The Berlin pseudo-hermaphrodite.—Absence of Vagina and Uterus.

A decade or so ago when visiting the renowned Dr. Aufrecht, Chief of the Magdeburg City Hospital, my attention was for the first time directed to the examination of urine for typhoid fever bacilli. It must be admitted that aside from the mere scientific and pathological aspect, the determination of these specific microbes has also an important diagnostic value. Dr. Neumann, of Berlin, read an interesting essay recently, before the Berliner Medicinische Gesellschaft on this subject. He had made 114 single observations, in 11 of which the specific typhoid fever bacilli were discovered. Neumann's method recommends itself for its simplicity particularly. He sterilizes the reagent-glass and catheter over an alcohol-lamp, cleanses the orifice of the urethra with antiseptic cotton and obtains a suitable material for observation by allowing the first part of the urine to drain off. A drop of urine being now placed under the microscope, the field of vision will be found teeming with mobile bacilli. The healthy bladder does not contain any bacilli, hence we can *a priori* diagnose the microbes found as typhoid fever bacilli. In order, however, to determine, indubitably, the nature of these microbes, special bacteriological examinations, and pure cultures on various soils are indispensable. The question of how these bacilli find their way into the urine, Dr. Neumann answers in a very satisfactory manner. During the typhoid process numerous bacillary foci are formed in the kidneys, and a reactive inflammation sets in around the renal capillaries in which the tubuli uriniferi also partake ultimately. It is to be noted, however, that these bacillary foci in the kidneys do not form constantly nor even very frequently during the typhoid fever process. This, no doubt, accounts for the comparative rarity of cases where the bacilli can be discovered in the urine. As the bacilli appear in the urine simultaneously with the roseola of the skin, the urine need not be examined previous to that stage. To be sure we must not confound the appearance of bacillary foci in the kidneys with circumscript parenchymatous nephritis setting in during the typhoid process, for in all his observations Neumann has never found any albumin in the urine. The bacilli find in the bladder an excellent soil for propagation, and exist in that organ after the kidneys have long ceased to transmit any bacilli to the urine. They have been found in the bladder as long as the twenty-first day of the fever. The question now arises, how does the last of the bacilli get out of the bladder? Neumann says the last bacillus swims away before it has time to propagate itself, hence the cause of disappearance is a mere mechanical one.

There is a great difference of opinion regarding the virtues of a drug as emanating from a well-known and conscientious clinician, and as coming from the manufacturing chemist or the discoverer. The quick and energetic way in which Professor Leibreich and others recently sat down upon somnal and its discoverer, Dr. Radlauer, proprietor of the Berlin Kronen-Apotheke, will, it is to be hoped, prove an effective check to all further inventive aspirations of German chemists. Much more acceptable is the discovery of new remedial virtues in an established drug such as the announcement of Dr. Collischon, of the Heilige Geist Hospital, Frankfurt on the Main, that phenacetin is an excellent anti-rheumatic remedy. It resembles salicylic acid, in that it develops its high remedial virtues only if given in large doses. The proper dose in which phenacetin acts reliably is twelve grains given four times daily or thirty grains given twice a day, morning and evening. After the pain has disappeared, it is advisable to continue the drug in small doses. Collischon is rather emphatic in declaring that one to two ounces of the drug during one to three weeks will cure any case of acute articular rheumatism. In the majority of cases treated by Dr. Collischon, it was only exceptionally necessary to resort to salicylic acid. The well-known unpleasant secondary effects of salicylic acid, naturally invite the trial of other anti-rheumatic agents, although upon antipyrin and salol but little praise can be bestowed. Collischon himself, suffering from musculo-articular rheumatism, took nearly four ounces of salol in three weeks without the slightest beneficial result, while 30 grains of phenacetin, taken twice a day, promptly relieved Dr. Col-

lischon in two days. The drug is well borne as a rule. In a few cases only considerable perspiration, although without subsequent weakness and cyanosis, ensued after 15-grain doses given four times. The temperature usually sinks on the second or third day to one-half or one degree (Centigrade) below normal; the pulse falls 10 to 15 beats and respiration also becomes slower. An exanthematous eruption has never been observed. The acute clinical forms of articular rheumatism yield best to the drug; less easily the non-febrile forms, and not at all the muscular forms. The patients on whom Dr. Collischon's observations have been made were all well nourished and had comparatively strong constitutions. Dr. Collischon advises that the use of the drug should at first be attended with some caution.

Dr. Finger recommends sub-benzoate of bismuth as a valuable substitute for iodoform in soft chancre. The drug is a white, fine powder, obtained by heating subnitrate of bismuth with hydrochloric acid. The advantages of iodoform in rapidly cleaning and healing the wound are also obtained from sub-benzoate of bismuth which, besides, has the great advantage of being absolutely odorless.

An interesting case of a masculine pseudo-hermaphrodite was recently presented before the Berlin Medical Society by Dr. Rosenthal. The patient, a young man 23 years of age, was at birth regarded as a girl and received the name of *Sophie*. A little difficulty in passing water was noted on the third day after birth, and a trivial operation performed. The patient grew up, but experienced considerable difficulties during his school days by being expelled from various institutions for improper behavior. At the age of 12, the patient of his own accord asked to be examined by a police surgeon. At the examination the patient was pronounced to be of male sex and the authorities conferred the name of Hermann upon him. His sexual desires awoke early, having seminal emissions when thirteen years old. The patient's voice is manly, he has a little moustache, but a small figure, and a womanly complexion and expression of the face. The genitals present, at first sight, a decidedly female aspect, are covered by hair, and present two prominences similar to the two labia majora. A closer inspection, however, demonstrates that we have to deal here with a divided scrotum, the right portion of which contains an intestinal loop and the left of which is empty. Testicles are absent, hence it is a case of double cryptorchism. Between the two scrotal portions the penis is located, small, moderately developed, two and one-half inches long. The copus cavernosum is normal but the prepuce is absent. From the skin of the penis just behind the gland apparently two labia minora arise. The penis is fixed in a backward and downward direction in a manner which causes during urination the wetting of anus and thighs. A rectal examination reveals also the presence of a small prostatic gland. The patient cohabits in a sitting attitude, though of course an immissio penis is out of question.

Dr. Aleksa described a case with congenitally absent vagina and uterus occurring in woman 26 years of age, married since eight years. The woman sought medical advice for her sterility. Examination revealed both large and small labia in a normal development and between them a funnel-like opening which the physician regarded at first as an unruptured but greatly expanded hymen. A small incision 2–3 m. m. deep not opening the vagina, the suspicion of the absence of this organ was first awakened. The following examination proved that both vagina and uterus were absent. Patient admitted having intense sexual appetite, but having never received any satisfaction from cohabitation, but that on the contrary she had often fainted and had been ill for some days after the act.

This morning a young New York physician and a German medical student fought a pistol duel in the Grünewald, near Berlin, the cause being a love affair—the daughter of the mutual boarding-house keeper. The German student was shot in the left thigh; and as the police surprised the duelists, an unwelcome consequence is likely to follow.

Tooth Washes.—Liquid dentifrices are not usually so detersive or cleansing as pastes or powders, and are better suited for remedies for the breath or for the purpose of applying a preparation to the gums than for cleansing the teeth. Where they are expected to have a cleansing effect, it is usually obtained from soap. Myrrh and astringents can be readily applied to the gums in this form of dentifrice, and also a perfume, serving the same purpose as the various cachous of the market, can be employed. This latter class of dentifrices belong more strictly in the sphere of the perfumer.

PERISCOPE.

Treatment of Undescended Testicle.

Mr. W. Watson Cheyne, Surgeon to King's College Hospital, London, has an interesting paper in the *British Medical Journal*, Feb. 15, 1890, in which he says that, on account of the grave inconveniences which attend the retention of testicles in the inguinal canal, he has, like a good many other surgeons, made attempts in several cases to bring them down to their proper position in the scrotum, but he cannot say that the results of these attempts have been very brilliant. He says he has tried most of the plans suggested, and has in all cases, after freeing the cord and testicle, stitched the latter to the lowest part of the scrotum by means of catgut, and afterwards placed catgut sutures in the external ring to prevent the testicle slipping up again into the inguinal canal. The immediate result is that as soon as the hold on the testicle is relaxed, it retracts to the external ring, drawing in the scrotum with it, thus forming a pucker, and the ultimate result is that the testicle lies at, or very little below, the external ring, in a position very little better than that which it formerly occupied. It struck him, however, if he could keep up the tension on the cord for some days it would gradually stretch, and that then, when the tension was relaxed, the testicle would remain in its new position in the scrotum.

A drawing illustrating Mr. Cheyne's article shows the mode in which this object was attained in a case which he describes.

He had a small triangular wire frame constructed which fitted into the perineum and over the pubes, and was kept in its place by threads of carbolized silk, attached to each angle of the frame and passed round the abdomen and thighs. At a point opposite the apex of the scrotum a projecting bar was attached to the frame to which the thread which passed through the cord could be tied. The mode of operation in this case was as follows: The testicle and cord were freed and brought down into the scrotum, in which a pouch was formed for its reception. A strong catgut stitch was then passed through the structures of the cord immediately above the testicle, and both ends were brought out through a hole at the apex of the scrotum and tied round the projecting bar. Care was taken that the vas deferens should not be on the side of the cord through which the thread might cut its way. In this way any desired amount of tension can be kept up on the cord, and in this particular case Mr. Cheyne did not stretch the cord at the time of the operation as completely as he intended ultimately to do but tightened it at the second dressing some days later. After stitching up the external ring and the wound, the whole arrangement was enveloped in antiseptic dressings. He did not, in this case, pass the stitch through the apex of the testicle but through the cord, because he did not wish to set up orchitis, nor to destroy any of the testicular structure, while he thought the stitch would not cut through the cord so quickly as through the testicle.

Of course it is only in a certain proportion of these cases that any operation with the view of bringing down the testicle can be of benefit, and I should only attempt it in cases where the testicle was fairly movable in the inguinal canal and could be readily made to protrude at the external ring. Where the testicle is retained at the upper part of the inguinal canal, the cord very short and the testicle much atrophied, Mr. Cheyne believes it is best, in view of the serious trouble to which it may afterwards give rise, to excise it at once and bring together the walls of the inguinal canal. The case he describes was that of a boy eleven years old, with both testicles in the inguinal rings, in which the old method failed on one side, and the new one succeeded on the other.

Signs of Death by Hanging.

In a paper on the Recent Progress in Legal Medicine in the Boston *Medical and Surgical Journal*, February 27, 1890, Dr. F. W. Draper, Professor of Legal Medicine in Harvard University, says:

At the International Congress of Legal Medicine at Paris, the physiology and pathological anatomy of death by suspension was the subject of an animated discussion. Coutagne showed the importance of differentiating the phenomena and appearances which follow compression of the trachea from those which result from compression of either the blood-vessels or the pneumogastric nerves. When one dissects out the nerves and isolates them, in the neck of a dog, and passes a cord tightly around the animal's neck be-

neath them, death is much more slowly brought about than in the cases in which the nerves are also included in the compression. With reference to the anatomical appearances, Coutagne insisted on the value of a comprehensive study of all the lesions and data in enabling the examiner to reach a correct diagnosis of death by hanging; the external inspection is particularly important. Sub-pleural ecchymoses have lost much of the significance which Tardieu attributed to them as diagnostic aids. The lungs are swollen, but they are not the seat of a true hyperemia, but rather of a special change to which Lacassagne has given the name "l'œdème carminé." The abdominal organs are sometimes congested to such a degree as to suggest poisoning as the cause. Coutagne did not believe that there was any single sign which, taken alone, was pathognomonic of death by hanging; although in strangulation the ecchymoses observed were generally less circumscribed than those in death by suspension.

Richardière declared that he found it impossible, by the anatomical appearances only, to diagnosticate a death by hanging from a death by strangulation with a cord.

Vibert recalled Hofmann's observation that one may find all the lesions of strangulation on the dead body of one who has not been strangled at all, but who has fallen from a height and received fatal injuries in that way.

Brouardel stated his belief in the impracticability of discriminating death by hanging from death by strangulation with a cord; and asserted that both topics should be studied together as being essentially identical. He did not think that the sub-pleural ecchymoses had a purely mechanical origin, but he was unable to formulate any satisfactory explanation of their development. Concerning the erotic sensations formerly believed to be regularly attendant upon a death by hanging, Brouardel declared that nothing of the kind occurs. If sometimes there is a discharge of seminal fluid in these cases, it occurs in from fifteen to twenty minutes after the death, and is due to cadaveric rigidity manifesting itself in the seminal vesicles. Besides, among those who have been resuscitated after suspension, not one has been known to testify to voluptuous sensations as a part of the proceeding.

Gosse related some experiments which he had made upon himself with reference to the phenomena of death by hanging. On two occasions he had carried the suspension to the point of losing his consciousness. He found that in these cases the cord did not compress the neck so as to prevent respiration. When the cord pressed forcibly on the carotids there was not much pain, but a buzzing sound in the head and an early onset of unconsciousness. If the rope pressed directly in front of the neck, over the trachea, the struggle for breath was very distressing. When the lungs are filled with air just before the noose is tightened, the suffering is lessened. The sub-pleural ecchymoses, also, have been found to be less numerous and less distinct when the lungs are fully inflated at the moment of the suspension.

Supra-pubic Cystotomy.

Dr. Albert Vander Veer, of Albany, reports, in the *Medical News*, March 1, 1890, four cases of subra-pubic cystotomy, and comments on them as follows:

While my experience with supra-pubic cystotomy is not so great to make a personal generalization valuable, yet I feel that a comparison of it with other operations, done by me for similar conditions, might not be amiss. First, I am sure that I am able to explore more thoroughly by the supra-pubic than by the perineal incision. More especially is this true where the patient is fat and has a deep perineum. My first case of supra-pubic cystotomy here reported was for the removal of a papillomatous growth. I had already operated in the case by the perineal method recommended until recently by Sir Henry Thompson. The subsequent history showed that the second operation was much more successful than the first. The facility with which the operation was done the second time thus showed a great improvement over the first. The growth was more accessible, the hemorrhage more easily controlled, and by the Trendelenberg position, with the use of the electric light and suitable retractors, an inspection of the field of operation was possible. Drainage was satisfactory. In the case of tuberculosis of the bladder, the diagnosis was surrounded by great difficulties. At that time there were no tubercular deposits in the mesentery, testicles or epididymis. Primary tubercle of the bladder is exceedingly rare. In this case the exploration was necessary to complete diagnosis. I am convinced that the same principles that are involved in the exploration

of other organs should be applied to the exploration of the bladder. Again, the experience of surgeons with tuberculosis of the peritoneum has been very satisfactory. Guyon reported two cases of tubercular cystitis treated by supra-pubic cystotomy and the application of iodoform oil to the ulcer. One case was cured two and a half years later. The other was improved, and there was an absence of tuberculosis in both after-treatment. From analogy, quite as much of the improvement can be attributed to drainage as to iodoform oil.

The two cases of stone were both accompanied by a severe type of cystitis, and one by prostatic hypertrophy, multiple calculi, and sacculated bladder. Litholapaxy is, in my opinion, absolutely contra-indicated in such cases. Permanent lithotomy has often been done, and calculi lying in sacs near the fundus have been overlooked. I have had so unfortunate an experience. Then, again, I have succeeded better with supra-pubic siphon drainage than with perineal drainage. It is very difficult to maintain an opening through the perineum after median section. Patients tolerate drainage-tubes badly, and their removal is often necessary after a few hours. After median lithotomy, patients begin to pass urine by the urethra often by the third day.

I had a case, not long since, of cystitis from enlarged prostate, in which the perineal section was done for drainage; a day after the operation the drainage-tube, which was a large one, slipped from the wound, and retention of urine occurred. A good deal more distress was caused in introducing it again, than in the same procedure by supra-pubic incision.

Forceps not in the Abdomen.

The *Pittsburgh Medical Review*, March, 1890, states that for two months a paragraph has been floating on the current of American journalism to the effect that two prominent surgeons of Pittsburgh recently left a pair of forceps in the abdominal cavity of a woman after a laparotomy, and that a third surgeon had discovered and removed them. It seems a pity to spoil such an interesting and harmless anecdote, but truth compels us to say that the story is without any foundation. Its origin was probably in a sensational newspaper tale published in this city some time ago, and evolved entirely from the active imagination of a newspaper reporter.

A news item in regard to this matter appeared in the REPORTER, Dec. 15, 1889, quoted from a lay paper. We are glad to learn that the story was untrue.

Artificial Feeding of Infants.

In an interesting article on the feeding of infants, in the *Archives of Pediatrics*, December, 1889, Dr. Arthur V. Meigs says:

Improved modern methods of feeding, and the greater degree of success attained thereby, have made it proper to look upon the question of employing wet-nurses from a somewhat different stand-point from formerly. The results of artificial feeding used to be so bad that in all cases, if it was in any way possible, it was wrong not to obtain a wet-nurse. Now we may give much more weight to the consideration of the many risks run from the woman's being perhaps diseased or having an insufficient supply or bad quality of milk, and that they are so apt, in this country at least, to become discontented, and go away without previous notice, just at some critical period of the infant's life. The class of society from which wet-nurses are drawn is a very low one, for they are, as a general thing, either women from the lowest ranks of life, who have had illegitimate children or have been deserted by their husbands, and therefore the chance of their being diseased is very great; and, besides, they are generally of such a low order as to be difficult to manage. Upon the other hand must be set the facts, that in artificial feeding, if the food is impure or the various component parts are not present in the right proportions, the fault is ours, and the remedy is easily applied. If we have intelligent people to deal with, and have their full confidence, so that they will carry out implicitly the directions given them, infants may be hand-fed with great success, and in some instances with more success than from the employment of wet-nurses, though, of course, there is not now and probably never will be, found any artificial food which will be equal to that provided by nature when it can be had at its best.

The end to be striven for in order that more general success may be attained in the artificial feeding of infants is to diffuse more widely and to make common property of the

knowledge how small a proportion of caseine exists in human as compared with cow's milk, and that in addition to the dilution which is necessary to reduce the amount of this constituent we must use, in proper proportions, cream, sugar and lime-water.

Treatment of Colds.

In the *New York Medical Journal*, March 1, 1890, Dr. C. H. Stowell, of Washington, has an interesting article in which he recommends the following line of treatment: If the patient is seen early in the attack he should have at once a hot foot-bath and a bowl of hot lemonade. He should then be placed in bed and covered with blankets until copious perspiration is produced. If seen at a little later stage, and the fever seems excessive and the whole system affected, then there are two marked remedies at our command—aconite and belladonna. The tincture of aconite is best given in small doses, half a drop once every half-hour for a few hours, until its physiological action is apparent. If the discharge from the nose be thin, or if the throat be involved, then small and frequently repeated doses of the tincture of belladonna will give marked relief. A brisk cathartic is often indicated and generally very desirable.

In the beginning of the attack the nasal mucous membrane is likely to be dry and swollen, giving the sensation of the presence of a foreign body, causing sneezing and a sense of fullness. In this early stage the abortive treatment, already alluded to, can be relied upon, if local treatment be combined with it. Cocaine and antipyrine are almost specific for this trouble. They can be used as a spray in the strength of one per cent. of the former with four per cent. of the latter. Thus:

℞ Cocain hydrochlor . . . . gr. ivss.;
Antipyrin . . . . . gr. xviij;
Sodii bicarb. . . . . gr. v;
Aquæ . . . . . f℥j
M. Sig.: Nasal spray.

This should be sprayed thoroughly into the nares. The swollen membranes soon retract, and nasal respiration is free and easy. The spray should be repeated as often as the nares become occluded. If any nasal symptoms remain after the first twenty-four or thirty-six hours, it is better to substitute a spray with an oil for its base. Thus:

℞ Cocain hydrochlor . . . . . gr. ix;
Aquæ . . . . . f℥ ss.;
Ft. solutio et adde
Olei petrolei . . . . . ℥ j;
Olei eucalypti . . . . . gtt. vj;
Olei gaultheriæ . . . . . gtt. iij.
M. Sig.: Nasal spray. Shake thoroughly before using.

This spray can be used morning and night for a few days only, or until the acute catarrhal symptoms have disappeared.

As atomizers cost money, and as they can not be carried about readily, a powder may be substituted for both the above. Thus:

℞ Sodii bicarb . . . . . gr. ij;
Magnesiæ carb. (levis) . . . gr. iij;
Menthol . . . . . gr. j;
Cocain hydrochlor . . . . . gr. iv;
Sacch. lactis . . . . . ℥ jss.
M. Sig.: Use as snuff.

The most marked relief will follow the use of this powder, and a few applications will do much to abort the catarrhal attack. Its effects are immediate, highly agreeable to the patient, and continuous for a number of hours.

In the case of young children, where a powder or spray cannot be used to advantage, an ointment can be substituted. Thus:

℞ Cocaine hydrochlorate . . . . gr. ix;
Anhydrated lard, } . . . . āā ℥ ss.
Vaseline, }
M. Sig.: Ointment for the nose.

A small amount of this can be placed on the end of a feather and inserted into the nose.

A word concerning any objection that may be urged as to the use of cocaine in this manner. 1. The amount prescribed in each case is small; especially is this true of the powder. The prescription given above will last a patient for days—in fact, his acute catarrh will disappear before all the powder is used. 2. Neither the sprays nor the powder should be continued after the first few days of the attack. 3. They should not be prescribed for chronic catarrhal affections; for while it is true they give great relief in chronic hypertrophic conditions, yet the relief is but temporary, and their constant use may give most undesirable effects. 4. The physician should dispense his own powder, giving not over a drachm to each patient. If possible, he should dispense the sprays as well. By so doing he will retain the power to prevent any overuse or misuse of the drug.

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The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

TRANSPLANTATION OF THE THYROID.

Professor Lannelongue has recently, as reported in the *Bulletin Médical*, March 9, 1890, carried into effect the suggestion of Professor Horsley in the *British Med. Journal*, Feb. 8, 1890, to transplant to the human body the thyroid gland of a sheep, in the hope that it would supply the want of the natural thyroid in cases of what is known as myxœdema, or *cachexia strumipriva*.

Lannelongue has actually made the experiment on a girl fourteen years old, who was a typical myxœdematous cretin, and under his care and that of Dr. Legroux in the Trousseau Hospital. He removed the thyroid gland of a young adult sheep, and implanted two-thirds of its left lobe in a pocket prepared below the right breast of the patient. The neck could not be utilized, on account of the presence of myxœdematous tumors. The operation was done aseptically, and as bloodlessly as possible. The dressing was first changed after eight days, and the wound was found to be perfectly healed.

What will become of the implanted gland tissue, it is too soon to say; and, equally, no reasonable expectation can be formed as to the effect upon the economy of such a procedure. The hopes founded upon theory justify the experiment; but it must be understood that it is an experiment only and nothing more. The result of some experiments conducted by Schiff and Eiselberg some years ago indicate that this method may have promise of real usefulness. It is as yet a sort of curiosity in surgery; but it may some day be much more.

MEDICAL EXAMINATION OF SUSPECTS.

The importance of correct notions in regard to the subject of medical examination of persons suspected of lapses from virtue or of legal offenses in connection with the generative function is the subject of an Editorial in the *Lancet*, February 22, 1890. The article is founded upon a recent paper by Mr. W. F. Lowndes, in the *Liverpool Medico-Chirurgical Journal*, and refers to his experience as a surgeon to the Liverpool police as giving authority to the warning he addresses to medical men with regard to examinations of women suspected of recent delivery, and concealment of birth or child murder, of domestic servants suspected of being pregnant, and of males in custody for alleged indecent assaults. Mr. Lowndes shows clearly that in England such examinations are illegal without the consent of the party examined, supporting his position by reference to cases that have been made actionable with disastrous results to the medical man, and citing the case of an unfortunate lady who, accused of child murder, committed suicide rather than submit to the

examination by two medical men who had been furnished with a Coroner's order for that purpose. The *Lancet*, in 1871, secured a legal opinion that a Coroner issuing such an order and the medical man acting under it would alike be liable to heavy damages in an action. A woman in custody cannot be examined, even on a magisterial order, without her full consent; neither magistrates, nor policemen, nor medical men may infringe on the rights of any person. Mr. Lowndes advises medical men to never examine any woman under any circumstances without having first obtained her consent in the presence of one or more reliable witnesses, and, if possible, in conjunction with some other practitioner.

If this rule were always followed, much trouble and loss would be saved to medical men, who err through ignorance of the law, and especially of the fact that not even a judicial order will justify examination of the generative organs without consent of the person examined. The same rule applies to the examination of the male, in cases of alleged rape or indecent assault; and Mr. Lowndes's rule of action in such cases, is to obtain the individual's free consent; notifying him that the result of the examination may be in his favor, or it may be against him, and asking: "Do you still consent?"

The conditions referred to are not peculiar to any one country; although the law in regard to the rights of individuals may vary somewhat; and it certainly seems worth while to call attention to what might some day lead to serious embarrassment on the part of an over-zealous or ill-informed physician. The danger would be very great in the case of forcible examination of a suspected man or woman; and nothing but demonstration of the suspected crime and conviction of the offender would serve to avert it, if he or she were informed of his or her legal rights, and were disposed to vindicate them.

Physicians may well be aware of these facts, and shape their conduct according to such prudent rules as Mr. Lowndes suggests, for their own safety, and no less in justice to individuals who may be innocent, and who, even if justly suspected, are often not without some claim to consideration.

PHYSICIANS AND JURY DUTY.

We see, by an editorial in the *National Druggist*, March 15, 1890, that physicians and druggists in Missouri are free from obligation to serve on juries. The law under which the exemption is claimed reads: "No person being a member of any volunteer fire company duly organized and ready for active service, no person employed in any paid fire department, nor in any State eleemosynary institution, and no person exercising the functions of clergyman, practitioner of medicine, attorney at law, clerk, or other officer of any court, ferry keeper, druggist, postmaster, overseer of roads, coroner, constable, miller, professor, or other teacher in any school or institution of learning, judge of a court of record, superintendent of county poor-house, or any person over the age of sixty-five years, shall be compelled to serve on any jury."

This would be a good law for any State, so far as physicians and druggists are concerned—and we have, as physicians, no concern now with others. In Pennsylvania physicians are not by law exempt from jury duty. It is not long since the Editor of the REPORTER was summoned for jury service, and had to go to Court in spite of his engagements as a physician. It is true that it would probably never be difficult for a physician to have himself excused from actual service as a juryman by the Court; but it might prove a great hardship to him and imperil the health or life of some of his patients if he were compelled only to appear and were then soon allowed to return to his medical duties.

As there are physicians in most State Legislatures, it would be well if some of them would take this matter up and secure

the enactment of laws exempting physicians from being summoned to serve on juries. In so doing we believe they would have the approval of all thinking men, whether physicians or not.

FOREIGN PHYSICIANS IN FRANCE.

In the REPORTER, Jan. 11, 1890, mention was made of the French Government refusing to grant permission to English medical men to practice in places resorted to by English in France, without having passed a French examination. This action was strongly resented by the English profession and severely criticised by the British medical press; and it now appears that the French Government has appointed a Commission to discuss the question of foreign physicians practicing in France. At a conference of this Commission, held March 10, M. Spuller, the Minister of Foreign Affairs, urged the necessity of allowing foreign physicians full permission to attend their fellow-countrymen at French health resorts, and also advocated the granting of licenses to foreigners in special branches of medicine.

We have heartily sympathized with our English brethren in France in their unfortunate and unjust position. That foreigners in any country should be denied the right of medical attendance from their own countrymen seems to strain the proper surveillance of medical practice a little too far, and certainly English physicians should not be singled out for peculiar restriction.

There are a number of American physicians in France who are now enjoying extensive practices, and—so far as we know—no such restrictions have been placed upon them. We sincerely hope that the Commission will take such a sensible view of the matter as does the Minister of Foreign Affairs, and that France will be soon open to practitioners from any country, who bear diplomas from reputable schools of medicine, especially if their intention is to practice only among their own countrymen. It would undoubtedly serve as a sort of check upon the large visitation of foreigners to France if it were understood that visitors to that country could not secure the services of physicians from their native lands in case of illness or accident; and this, we think, would not be to the interest of the French themselves.

BOOK REVIEWS.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the REPORTER.]

THE INTERNATIONAL MEDICAL ANNUAL AND PRACTITIONER'S INDEX FOR 1890. Edited by P. W. WILLIAMS, M. D., Secretary of Staff, assisted by a corps of thirty-six collaborators—European and American. 8vo, pp. 600. E. B. Treat, Publisher, 5 Cooper Union, New York. Price, $2.75.

This is the American edition of an English work which has some excellent features, and some very poor ones. It is of some use to have succinct expressions of opinion from men who are specialists in important departments of medical practice; but it is almost a fraud upon the reader to have long articles on such subjects as "thermo-therapeutics," which in style and illustration seem like mere advertisements of special establishments. Like most works of the kind the Annual is very uneven in literary and scientific quality; and unlike some, it is padded out with advertisements which are an insult to the intelligence and honesty of the medical profession. On the whole, we would say that we see little use for such a book, regarding only its failings and passing by its faults; while if we fix our attention on its faults, we think the honest critic must give it unqualified condemnation.

SYLLABUS OF THE OBSTETRICAL LECTURES IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF PENNSYLVANIA. By RICHARD C. NORRIS, A. M., M. D., Demonstrator of Obstetrics, University of Pennsylvania. 8vo, pp. 154. Philadelphia: W. B. Saunders, 1890. Price, $2.00.

This is a very good condensation of the Lectures on Obstetrics given at the University of Pennsylvania. It will doubtless be of interest chiefly to the students of this school, and will afford them far more accurate and suggestive "notes" than it is possible for the individual student to take. It should meet with favor among those for whom it is intended.

ESSENTIALS OF GYNECOLOGY. Arranged in the Form of Questions and Answers Prepared especially for Students of Medicine. By EDWIN B. CRAGIN, M. D., Attending Gynecologist to the Roosevelt Hospital, Out-Patient Dept. Saunder's Question Compends, No. X. 8vo, pp. 190. Philadelphia: W. B. Saunders, 1890. Price, $1.00.

This is a most excellent addition to this series of question compends, and, properly used, will be of great assistance to the student in preparing for exami-

nation. Dr Cragin is to be congratulated upon having produced in compact form the essentials of gynecology. The style is concise, and, at the same time, the sentences are well rounded. This renders the book far more easy to read than most compends, and adds distinctly to its value. In its binding and print, the book is uniform with the others of the series.

MEDICAL AND SURGICAL MEMOIRS: Containing on the Geographical Distribution, Causes, Nature, Relations and Treatment of Various Diseases. By Joseph Jones, M. D. Vol. III, parts I and II. 8vo, pp. 901. New Orleans, La.: Joseph Jones, M. D.

The third volume of this monument of patient labor and untiring zeal sustains the standing of the previous volumes. The present volume is in two parts and is a review of the history of Medicine and Surgery in America from 1880 to 1890. Besides 901 pages of text it contains several addresses, several chromolithographic plates, twenty-one maps and charts, twenty-two extensive and elaborate tables, and numerous engravings. The first part of the volume deals at length with epidemic yellow-fever, which Dr. Jones claims is neither indigenous to New Orleans, Louisiana or the Mississippi Valley; and, if rigid and effective quarantine measures be enforced, can be excluded from these places. The second part of the volume consists of monographs on Medical Education, Teratology, Nervous Diseases, Insanity, and other subjects of interest to the profession.

A POPULAR TREATISE ON THE WINDS: Comprising the General Motions of the Atmosphere, etc. By William Ferrel, M. A., Ph. D., late Professor and Assistant in the Signal Service, etc. Large 8vo, pp. viii, 505. New York: John Wiley & Sons, 1889.

It is hard to do justice to a book of this sort in the space which we can spare to a notice of it. It is little to say that it is a most elaborate work, containing the result of careful and thorough investigations in regard to the phenomena of the atmosphere and the principles which govern them. The conditions and movements of the atmosphere as a whole and in its parts are described with the most painstaking thoroughness. There seems to be no element bearing upon the subject of meteorology which the author has overlooked, and every one is discussed so minutely that it is hard to understand how the book can be called a "popular" treatise. It is rather a work for the most practiced and learned meteorologists, and from them alone can it expect judicious appreciation.

Literary Notes.

—The Competition for Water Tower and Pumping Station Designs announced by *The Engineering and Building Record*, December 14, 1889, has been a handsome success. The time of the competition expired about March 1, with no less than one hundred and twelve designs received, fifty-six of each structure, and these with a degree of merit which all who have seen them pronounce remarkable.

The first prize of $100, was awarded to Elmer Grey, Milwaukee, Wis., and the second, of $75.00, to James C. Green, Brooklyn, N. Y.

Correspondence.

Acetanilid—Antifebrin.

THE NOMENCLATURE OF ACETANILID.

To the Editor.

Sir: The views of Dr. Bashore, supplemented by your note in the Reporter of March 22, will undoubtedly be indorsed by physicians who have thought much on the subject of the nomenclature of new drugs. I write to answer the implied query in your note as to the privity of a chemical product. I have had a considerable experience with acetanilid under both its names, and have always made minute observations of its action. Acetanilid made by either of several American firms is identical in action with the same substance made by the parties who own the copyright on the word "Antifebrin." Several American firms "protect their interests" by the practical copyright on their firm-name, and a certain make of quinine is bought as confidently for pure quinine as if it were under the copyrighted name "antimalarin." Certain makes of acetanilid can be as confidently used as being pure and true to label. But I find many physicians, who ought to know better, under the impression that acetanilid is a substitute for antifebrin.

Yours truly,

G. Walter Barr, M. D.

Bridgeport, Ill.

Cremation.

To the Editor.

Sir: I am fully in accord with the remarks of the brother from Iowa, on the subject of cremation. While it is "a mere matter of feeling," there is a very general one against it, not only among the people, but also among the professions. The Christian sentiment, of the resurrection of the body, has something to do with it; but there is more of it than that. Who willingly consents to the mutilation of the body of a near friend, and who but a crank or a medical man cares to think of having his body mutilated after death? And is not burning worse? We follow as a mark of respect, the bodies of our loved ones to the grave; and we visit their resting places afterwards. A monument or a jar of bone-ashes has no such tender reminiscences. I have heard

many admirers of Dr. Gross express the feeling that his cremation seemed like a wilful desecration, that deprived them of the satisfaction of paying respect to his memory, by visiting his grave.

The country is wide enough for burials, and the hygienic objections are proved to be as baseless as the ghosts that were supposed to infest the graveyards.

Yours truly,

P. J. FARNSWORTH, M. D.

Clinton, Iowa.

TO THE EDITOR.

Sir: It may be you would like to have an opinion from a medical man way out here. I have read the articles in the REPORTER regarding cremation. It is a subject that should and must be discussed, for the time is coming, my prognosis is, when it will be the mode after death. By the remarks of your correspondents, it would seem that sentiment is in control, whereas it should be solid, practical sense. I am heartily in favor of cremation, and after death my body will be disposed of in that manner.

Publish this or not, as you see fit; but yours is my favorite journal of the ten I take.

Yours truly,

E. C. ADAMS, M. D.

Watertown, Dak

[We usually strike out of letters to be published the complimentary phrases which correspondents kindly insert in them; but in this case we relax our customary severity.—ED. REPORTER.]

Gonorrhœa.

TO THE EDITOR.

Sir: Noticing from time to time the expressions of the medical profession in regard to the treatment of gonorrhœa, and the difference of opinion in regard to the subject, I am led to report to you a method which I have tried in my practice and which, so far as I know, is original with me.

I was led to the idea by the treatment of cases of chronic endometritis, which I treated with iodoform suppositories with very good results, and the idea occurred to me to treat gonorrhœa in the same way. Accordingly I tried the method on the next case that presented itself.

Case. J. M., acute gonorrhœa; penis very much swollen and inflamed; very severe pain on micturition; discharge profuse and muco-purulent. I prescribed suppositories (pencils) of iodoform, each containing 3 grains: one to be inserted every eight hours, after urinating, and one just before going to bed. The patient was instructed to keep quiet for the first twenty-four hours.

The result was a total cessation of the discharge and the abatement of all other symptoms within forty-eight hours after the first use of the suppository.

I have also used the same treatment in several cases of chronic gonorrhœa and in every case recovery was much more rapid than with any other treatment I have ever used.

Yours truly,

J. W. MAGILL, M. D.

Fairport, N. Y.

NOTES AND COMMENTS.

Prolapse of the Uterus at Term.

At a recent meeting of the Obstretrical Section of the Royal Academy of Medicine in Ireland, reported in the *Lancet*, Feb. 8, 1890, Dr. Kidd read notes on two cases of complete prolapse of the cervical zone of the uterus, preceding labor at full term. The first case occurred in a multipara with large, well-developed pelvis, and who had never previously suffered from prolapse. Dr. Kidd found on arrival a red or semi-purple mass protruding from the vagina, about three inches from the vulva. It was composed of the greatly-congested cervical zone of the uterus, dragging down with it the vaginal walls, and accompanied by strong voluntary bearing-down pains. He reduced this prolapse at the time, and it did not return while the patient was kept on the back with the pelvis raised until true labor supervened five days later. At this time the congestion had disappeared, and a living child was born after a very favorable labor. The second case occurred in a primipara, aged thirty-four, with a small pelvis, and differed in this respect, that there was no congestion of cervix, but the head descended, bringing with it the cervix. The os, quite rigid and only dilated to about the size of a crown piece, protruded from the vulva one inch or more. There was a large caput succedaneum, and four incisions—two anterior and two posterior—had to be made in the cervix to enable the short forceps to be applied.

She was delivered of a living female child. Dr. Kidd classifies prolapse of the cervix at full term into: first, those cases in which the congested cervix descends without true hypertrophy; second, those in which true hypertrophy has occurred; third, those in which, the os being rigid, the cervical zone is dragged down by the advancing head without any congestion; and, fourth, those rare cases in which pregnancy has been known to take place in a completely prolapsed uterus and go on to full term. Treatment may vary according to the case, but in all cases an endeavor should be made to return the prolapsed portion. If that be not feasible, the canal should be dilated with hydrostatic dilators, manual dilatation, or by incision, and delivery induced by forceps or cephalotripsy, supporting the perineum and vulva well, lest the lower segment be drawn through.

Paris Academy of Medicine and Tuberculosis.

Our readers may remember that a committee, appointed by the Tuberculosis Congress which met in Paris in the summer of 1888, and was referred to editorially in the REPORTER, Sept. 8, 1888, promulgated last year, a series of instructions respecting the prophylaxis of tuberculosis. As stated in the *Lancet*, Feb. 8, 1890, these instructions were widely circulated; and their promoters, desirous of obtaining the highest medical support (although the names of the members of the committee were those of eminent men), submitted the document to the Academy of Medicine in October. The Academy referred the question to a committee, which reported much on the lines of the original draft of instructions, with some abbreviations. The Academy has ever since been engaged in debating the subject, many eloquent speeches have been made, and whilst there has been in the main an agreement as to the contagiousness of tuberculosis, a serious difference of opinion has been shown with regard to the particular part to be played by the Academy in publishing its conclusions to the world; so that when in due course the debate came to a close it was found impossible to vote the report of the committee as it stood. Matters were almost approaching a deadlock, when M. Bergeron, the perpetual secretary, proposed a resolution embodying the point upon which there was almost general agreement—viz., that tuberculosis is contagious, and likely to be disseminated by the dust of dried sputa and tuberculous pus. That resolution was referred back to the committee, which, however, could not agree unanimously either to recommend its adoption or to advise the adoption of the original report. In the end the following resolution was passed with hardly any dissent, and the long and formal debate was followed by the promulgation by the Academy of a general statement, which leaves the matter almost in the position it was before the Congress on Tuberculosis directed attention to it. The resolution runs: "Tuberculosis is a parasitic and contagious disease. The microbic agent of the contagion especially resides in the dust produced by the dried sputa of phthisical subjects, and by the pus of tuberculous wounds. The safest measure for preventing contagion consists, therefore, in destroying these sputa and pus, before their desiccation, by means of boiling water or by fire. The parasite is also occasionally found in the milk of tuberculous cows; it is therefore prudent not to use any milk until it has been boiled."

Use of Drugs in Epilepsy.

In speaking of the treatment of epilepsy, the *Lancet*, Feb. 8, 1890, states that most physicians rely mostly on the administration of drugs. Those which for the last thirty years have maintained the first position in this respect are the bromides of potassium, sodium and ammonium. At the National Hospital for the Paralyzed and Epileptic, we understand that a ton and a quarter of these salts are annually consumed by in-patients and out-patients, in spite of the drawbacks—such as acne, wasting and general depression—which in some individuals attend their prolonged use. In consequence of these drawbacks, physicians and pharmacologists have long been seeking for some drug which should be free from the disadvantages of the bromides in general use, and yet have an equally powerful action in controlling fits. Recently observations have been made in France with antipyrin, antifebrin, osmic acid, bromide of nickel, chloride of gold and borax. The first four appear to be entirely ineffectual; but borax, an old remedy, seems to have succeeded where bromides were not tolerated. Most observers agree that the important points in

the treatment of epilepsy are continuity of treatment over a long period, attention to the general health and to the regular action of the bowels, and the avoidance or removal of any cause of mental or physical irritation.

Tar-water and Tolu in Hemorrhages.

Corneille Saint-Marc recommends the following in certain hemorrhages, notably in hemoptysis, epitaxis, metrorrhagias, etc.:

℞ Distilled tar-water . . . . . f℥j
Syrup of tolu . . . . . f℥ss
Essence of lemon . . . . . gtj
M. Sig.: Take in teaspoonful doses during the course of twenty-four hours.

—*National Druggist*, March 15, 1890.

Physician's License Revoked.

The Philadelphia *Ledger*, April 5, 1890, has a report from St. Paul, Minn., that the license of Dr. Theodore Dedolph, a graduate of the University of Berlin, in 1884, had been revoked by the State Medical Examining Board. It was charged that last October Drs. Frederick and Theodore Dedolph were called to reset the broken arm of a German manufacturer of St. Paul.

As the effect of the chloroform was passing off the patient struck at one of the physicians, and Dr. Theodore Dedolph hit him in the eye, permanently injuring his sight. The case was brought before the Board in March, some five months after the occurrence.

Both the doctors and their servant say that the patient inflicted the injury on himself, and the doctors claim that the case is one of malicious prosecution, and instigated by certain physicians of another school of medicine.

Medical Association of Georgia.

The annual meeting of the Medical Association of Georgia will be held in Brunswick April 16–18. Indications point to a successful and profitable session. It is several years since the Association has met in the southern part of the State, and it is hoped that a general interest in the work of the Association may be awakened.

The programme of the meeting gives evidence of faithful and commendable work on the part of the Secretary, Dr. K. P. Moore, of Macon. The following law governs the reading of papers:

"No paper shall be read before this Association, by title or otherwise, until a complete copy of such paper shall have been placed in the hands of the Secretary for publication in the Transactions."

The Association will meet daily at 9 A. M., adjourn at 1 P. M. o'clock. Assemble at 3.30 P. M., adjourn at 7 P. M. Further information may be obtained from the Secretary, Dr. K. P. Moore, Macon, Georgia.

Medical Society of the State of Pennsylvania.

The Committee of Arrangements of the Pennsylvania State Medical Society has issued a circular stating that the title of all papers to be read at the next meeting at Pittsburgh, June 10–13, must be sent to the Chairman, Dr. E. A. Wood, not later than May 1. Any inquiries in regard to the meeting will be answered by the Secretary, Dr. W. S. Foster. The address of Dr. Wood is Pittsburgh, Pa.

State Medical Society of Arkansas.

The fifteenth annual meeting of the Arkansas State Medical Society will be held at Little Rock, Ark., May 14–16, 1890.

The hearty co-operation of every member of the Society is earnestly solicited in the effort to secure a large attendance at this meeting and to make it in every way a successful one, and a cordial invitation is extended to all properly qualified physicians not now members of the Society, to become so. For the information of such persons the conditions of membership are given in a preliminary circular, which may be obtained from the Secretary, Dr. L. P. Gibson, Little Rock, Ark.

Secretaries of local Societies are requested to send to the Secretary of this Society, as soon as appointed, a list of the delegates and others who will attend from their respective counties. A final circular, giving detailed information concerning railway rates, hotels and titles of papers promised, will be sent to each member as soon as the necessary data can be obtained.

At the last meeting of the Society the Committee on Arrangements was instructed to prohibit, in the future, the exhibition of secret or proprietary articles in connection with the meetings of the Society.

NEWS.

—Dr. Constantine Goodell has been elected Instructor in Clinical Gynecology in the University of Pennsylvania.

—Dr. Henry W. Stellwagon has been appointed Lecturer on Dermatology in the Jefferson Medical College.

—Dr. Hobart A. Hare has been elected Clinical Professor of Diseases of Children in the University of Pennsylvania, in the place of Dr. Louis Starr, resigned.

—Dr. Alice B. Stockton, of Chicago, was recently the guest of the Russian novelist, Count Tolstoi, and his family.

—Dr. Edwin Arius Kilbourne, Superintendent of the Illinois Northern Hospital for the Insane, at Elgin, died February 27, 1890, at the age of 53 years.

—Dr. Edward P. Stamm, formerly of Philadelphia, died suddenly at Grand Rapids, Michigan, on March 30. Dr. Stamm was graduated from the University of Pennsylvania in 1881.

—Kansas City Medical College held its annual commencement March 10, and conferred diplomas upon a class of sixteen.

—The University of Nashville, Medical Department, held its annual commencement February 26, and graduated a class of 138 students.

—The Jefferson Medical College, Philadelphia, held its sixty-fifth annual commencement April 2. Degrees were conferred on 220 graduates.

—At the forty-second annual commencement of Hahnemann Medical College, of Philadelphia, held April 2, degrees were conferred on 64 graduates.

—Several cases of prolonged sleep and drowsiness have been reported in Cassel, Germany, and in various localities in the province of Hesse. At Schluchten a woman slept for three days. Several similar cases are reported at Neustadt.

—An epidemic of trachoma has attacked a whole regiment of Pioneers at Presburg, Austria-Hungary. Out of 570 soldiers, only 40 escaped. Many became entirely blind, and the regiment was disbanded in consequence.

—The South Carolina Board of Medical Examiners held an examination of applicants for license to practice medicine in that State, on March 5. Of the eighteen who applied for license twelve were successful, four were rejected, and two will be re-examined at the next meeting in April.

—A Chinese laundryman was removed from the Philadelphia Hospital to the Municipal Hospital, March 29, supposed to be suffering with leprosy. The man was admitted to the Philadelphia Hospital some weeks ago, apparently suffering from erysipelas. The disease was, however, diagnosticated as leprosy by the physician in charge, and the patient was transferred to the Municipal Hospital.

—There is a movement on foot at Yale University to secure the erection of a building to be called The Yale Home, where sick students may receive the care and attention which cannot be given in their rooms.

—In Melbourne, Australia, recently a mother and a brother swore to the identity of a corpse found in a creek, as their own daughter and sister, and followed it to the grave; but the missing girl has since been found alive. This is a new illustration of the difficulty of identifying dead bodies even by near relatives.

—A committee has just been organized in Paris under the presidency of Professor A. Fournier, with the view of raising a monument to the memory of the late Dr. Philippe Ricord.

—The influenza has reached Persia, and most of the inhabitants of Teheran, including many of the Shah's household, are suffering from it.

—A man calling himself Dr. Walter E. Reid, and President of the Michigan Spiritual Association, was convicted of using the mails for fraudulent purposes, in the United States Court at Grand Rapids, Mich., April 5, 1890. His sentence was deferred to give his counsel time to prepare a motion for a new trial, the respondent being required to give bail for $1,500.

—It was reported, April 5, 1890, that Dr. L. Z. Lyon, a veterinary surgeon in Baltimore, 72 years of age, had disappeared, and fears were expressed that he had been foully dealt with as he had considerable money in his possession.

—Dr. Theodore S. Wilcox, a graduate of the Eclectic Medical College of New York City, 1875, and Manager of the Sanitarian Hospital and Dispensary in Brooklyn, was convicted on March 27, of obtaining from that city by fraud, the sum of $1,726.55. Dr. Wilcox obtained the money on the strength of the report which he presented to the Board of Estimate. It was, however, discovered that the institution was simply a private boarding-house and not a hospital.

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Clinical Lecture.

NON-PARASITIC SYCOSIS.

BY HENRY J. REYNOLDS, M. D.,

CHICAGO, ILL.

PROFESSOR OF DERMATOLOGY IN THE COLLEGE OF PHYSICIANS AND SURGEONS; CHIEF DERMATOLOGIST TO THE WEST-SIDE FREE DISPENSARY; GENITO-URINARY SURGEON TO THE WEST-SIDE FREE DISPENSARY, CHICAGO, ETC.

Gentlemen: Almost invariably when a case comes before us for examination we see something in that particular case (the general expression or physiognomy of the disease, or some important points in connection with it) which suggests at least approximately the true condition or disease present. For instance, when we have an eruption that is universally distributed over the body, we at once suspect the presence of some one of the diseases which are characterized in that way; we suspect, for instance, a syphilitic eruption, or the eruption of psoriasis. When we find an eruption characterized by ulceration or destruction of tissue, we suspect the presence of one of the destructive diseases, such as lupus, syphilis, epithelioma, etc.; and when we meet with an eruption confined exclusively to the face, naturally we suspect at once the presence of a disease which is confined principally, if not entirely, to the face; as, for instance, acne, and the two forms of sycosis.

We have here a patient with an eruption not only confined to the face, but also confined to the bearded portion of the face, which narrows the range of diagnosis to that region. Now, as the diseases which affect essentially only the bearded portion of the face are simply two in number, parasitic sycosis and non-parasitic sycosis, we would naturally presume that in the case before us the disease was one of those two. Per-

haps almost everybody has heard of the disease commonly known as barber's itch, technically termed tinea sycosis, parasitic sycosis, tinea barbæ, or tinea of the beard. It is one of those diseases confined to the bearded portion of the face, and owing to the popularity of the name, or the supposed frequency of the disease, many cases of eruption in this locality are at times, even by physicians, loosely designated by that name, as has been done in this case. The disease to which I shall confine my remarks to-day, and which this case represents, though occurring in the same locality, being somewhat similar in its behavior, and bearing a similar name, it must be remembered is an entirely separate and distinct affection. It is known as simply *sycosis*, or in contradistinction to the parasitic disease already referred to, *non-parasitic* sycosis. The case before us then is one of *sycosis*, or *non-parasitic sycosis*.

In order to study more intelligently the various manifestations seen in this case, it is advisable, first, that you get some idea of the general characteristics of the disease.

As to *general appearance* in an ordinary well-marked case of sycosis we generally find an eruption which is distributed equally on both sides of the bearded portion of the face, characterized in a general way by some diffuse redness, usually some crusting, some papules and pustules, more or less thinning of the hair at times, and occasionally some larger lesions almost approximating small tubercles in character. We may at the same time find some lesions on other portions of the body, that is, on the hairy portions, such as the scalp, upper lip, eyebrows, the axillæ or pubes. Any of these hairy portions of the body may be affected by sycosis; but as I have already intimated, it is usually confined to both cheeks.

The disease is almost invariably met with in males, and is necessarily, as regards the face, confined to the bearded portion. It occurs after the age of puberty. It begins as one or several reddish papules, and penetrating each papule we find a hair—in other words, the papule is located around the hair, the inflammation producing it being confined to the hair follicle and the peri-follicular tissues. In addition to these papules, we always have some diffuse redness, this redness extending from one papule to the other. To express it more clearly, we have no healthy skin between the papules. Inasmuch as we have an inflammation of the hair follicles and the peri-follicular tissues, with evidences of diffuse inflammation extending from one papule to the other, we must, as a natural consequence, have more or less infiltration of the tissues and a certain amount of thickening of the flesh. Occasionally several of these papules are situated so close to each other that they seem to run together in one mass and form a slight elevation resembling a tubercle. Not only are these papules and the redness found on one cheek or one side of the face, but, as a rule, to which there is perhaps no exception, we find the same condition on the opposite side of the face. It is, in other words, a symmetrical disease, being distributed on both sides of the face in a similar manner. When we find the eruption confined to the upper lip it also bears that symmetrical character.

Now, as these papules are inflamed, sooner or later, we have the formation of pus and they become converted or transformed into pustules, each pustule, as in the case of the papule, being penetrated by a hair. These are very important points for you to remember, simple as they may seem; because they are to a certain extent pathognomonic symptoms of sycosis. Still further, in addition to the presence of pustules, especially if the hair be long, the pus is retained on the surface, where it dries down into scabs or crusts. This particular characteristic is conspicuous if the hair of the locality is allowed to grow long, or if the part is untreated. It is a disease characterized in its well-marked state by a mass of crusting, very much greater than we see in this case.

Now, as regards the hairs in the part affected. I have already stated that the disease is confined essentially to the hair follicles, and as a consequence the hair must be involved in the diseased process. We find, as I have already intimated, that many of these hairs are surrounded by papules. When these papules advance to the stage of pustules, the hair bulb or hair root is involved; and wherever the pustules form we have more or less breaking down of tissue. The hair becomes loosened in the follicles in time, and on examining we find that those which are situated in the pustules may be very easily extracted. This particular characteristic of loose hairs, however, is only found in the hairs that are situated in the pustules. The remainder of the hairs are always found firm in the follicles, differing in this respect in a striking manner from

some other diseases, such as parasitic sycosis, for instance. The remainder of the hairs are always firm and they are never brittle or broken off. There is very rarely any constitutional disturbance of any consequence in non-parasitic sycosis, although we frequently find these patients more or less anemic and lacking in general vitality. As regards subjective sensation, there is very little itching, but the sensation is that of burning, pricking or smarting. On account of this destructive character of the disease, —to which, however, the word destructive should scarcely be applied,—we have the formation of scars; the follicle becoming obliterated leaves naturally a depression or scar. As a natural consequence, when the follicles are destroyed the hairs are not reproduced, and we have a certain amount of thinning or baldness of the part remaining, which is an important characteristic, and one which is not met with until the disease has existed for some length of time. It is an extremely chronic affection.

Now that you comprehend fully what constitutes a case of sycosis, let me direct your attention to a consideration of this particular case.

This man is fifty-two years of age, a native of New York, a sailor by occupation. He has had the eruption a little over a year. He says it broke out while he was cruising on the Gulf of Mexico, shortly after he had been shaved in a New Orleans barber shop. On arriving at Vera Cruz a doctor told him it was the barber's itch. He was treated in New Orleans for barber's itch, and has been treated by several physicians since that time, the diagnosis being barber's itch, psoriasis, eczema, etc. The majority of these physicians, however, he says, diagnosticated it as barber's itch. He has been more or less unfortunate with the affection and is very anxious to get rid of it. He has for our benefit artistically arranged a list of the various treatments he has had, the remedies being first classed under the general head of *applications*, and then under the sub-headings of *washes*, *salves* and *soaps*. With your permission, I will read this list as he has it arranged. It will at least tend to show the chronic character of the disease, and at the same time show to some extent the opinions and views of the various medical men whom he has consulted. Under the head of *washes*, we have cocaine, chlorodyne, sulphurous acid 1 to 20, carbolic acid 1 to 20, 15 and 10, alcohol and washing soda, alcohol, pulverized alum, borax and sweet oil, one ounce each, add four ounces rain water—shake. *Salves.*—Blue ointment, ox. mercury (yellow), ox. zinc (plain) and combined with iodoform, tar, sulphur, etc., iodine salve, cereate of opium, sulphate of copper and zinc ointment, oleate of copper in lanolin, carbolated vaseline, cuticura salve and soap, flax seed poultices. *Soaps.* Sublimate soap, pine tar soap, castile soap.

As he passes around among you, I would like to have you examine carefully the characteristics I have referred to. You notice first the general appearance of the disease, it being equally distributed on each side of the face. You find, as you examine closely, the characteristic papules penetrated by hairs. You find the pustules also penetrated by hairs. You notice also the diffuse redness. You observe a thinning of the hairs also, although that is not very easily discerned in this case. Notice the tendency to the formation of crusts. You have already learned of the chronic character of the disease in this case from the numerous remedies he has used. You will notice that the hairs are all firm, except those surrounded by a pustule. You notice in several places a slight scar, which is not well marked on account of the disease not having existed a great while.

Etiology.—Now, as to the etiology or cause of the disease. As the disease is confined primarily to the hair follicles, it would seem that the hair were in some way implicated. There are a number of other elements that may be enumerated as probable etiological factors, such as the irritation of shaving, especially with a dull razor; a strumous diathesis, etc. We frequently see in a healthy individual after shaving, irritation of the hair follicles, and occasionally some reddish points or small papules formed upon the bearded portion of the face around each hair. A dull razor necessarily pulls on the hairs more or less, and in that way irritates or acts in a traumatic way upon the follicles. If there is any eczematous or natural constitutional tendency to disease of the skin, a little irritation of this kind would irritate and aggravate the disease, if it might not really produce it in some cases. The disease being frequently met with at about the age of puberty, it would seem probable that the natural physiological activity of the parts incident to the development of the hairs at that age must have some tendency to produce it,

as a physiological activity is very easily perverted into a pathological one.

As regards constitutional causes, while the disease may be said to be principally local in character, it is entirely probable that, if it is not actually produced by constitutional causes, it must certainly be aggravated or prolonged by certain constitutional conditions, as most every local disease is more or less influenced by the constitutional condition of the patient. Further than this there is nothing definitely known in regard to the etiology of sycosis.

We must not let this opportunity pass without a few words in regard to the assertion by the patient that he contracted the disease from the barber's shop. Almost invariably a patient with sycosis associates his disease with the barber shop, though the disease is non-parasitic sycosis and not barber's itch. The reasons are these: In the first place, though the disease is non-parasitic and not contagious, it is probable that one of the principal exciting causes may be justly traced to the barber shop or to the irritation of the last shaving act, the pulling of a dull razor naturally having an exciting effect. In the second place, nearly all men are familiar with barber's itch as a disease affecting the face and as one sometimes propagated through the medium of the barber shop, and they therefore naturally regard it as barber's itch (parasitic sycosis) and unjustly censure their barber.

Pathology.—As to the pathology, the parts essentially concerned are the hair follicles and the peri-follicular tissues, which are inflamed. As I have before remarked, we have some general inflammation of the tissues between these papules and some deposit of exudate in the tissues.

Diagnosis.—The diseases most likely to be confounded with non-parasitic sycosis are parasitic sycosis, eczema, acne, and possibly syphilis. By careful attention to the diagnostic tables which I now give you there need be no difficulty in any case.

SYNCOSIS.	TINEA SYCOSIS.
1. No reliable history of contagion.	1. Reliable history of contagion at times.
2. Starts as discrete papules.	2. Starts as ordinary ringworm patch.
3. Diffuse general redness.	3. No diffuse redness.
4. Characterized by papules and pustules, each of which is penetrated by a hair.	4. No papules nor pustules, but deep lumps.
5. Symmetrical.	5. Not symmetrical.
6. Hairs always healthy, and none loose except those surrounded by a pustule.	6. Hairs dry, brittle, broken off, and most of them loose in the diseased patch.
7. Microscope does not reveal any parasite.	7. Parasite readily discovered with the microscope.
8. Not liable to be accompanied by ringworm of the non-hairy parts.	8. Liable to be accompanied by ringworm on the non-hairy parts.

SYNCOSIS.	ECZEMA.
1. Little itching.	1. Intense itching.
2. Never vesicles nor serous exudation.	2. Generally vesicles and serous exudation at times.
3. Confined to bearded portion of face.	3. Rarely confined to bearded region.
4. Symmetrical.	4. Not symmetrical.
5. Papules and pustules penetrated each by a hair.	5. Papules and pustules not penetrated by hairs.
6. Generally occurs after puberty.	6. May occur at any age.
7. Generally met with in males.	7. Met with in females as well as in males.
8. Always a tendency to chronicity.	8. Rarely tends to chronicity.

SYCOSIS.	ACNE.
1. Confined to bearded portion of face.	1. Never confined to bearded portion, but affects entire face.
2. No comedones present.	2. Always find comedones intermingled with the eruption.
3. Diffuse redness.	3. No diffuse redness.
4. Papules and pustules are penetrated by hairs.	4. The papules and pustules are never penetrated by hairs.
5. Sycosis never found on the face of females.	5. Common in females.
6. Never met with until adult life and after the development of the beard.	6. Generally first met with at puberty and before the development of the beard.
7. Accompanied by pricking, smarting or burning sensations.	7. No subjective symptoms.
8. Tends to chronicity.	8. Tends to disappear spontaneously in adult life.

SYCOSIS.	SYPHILIS.
1. No history of syphilis.	1. Generally have reliable history of syphilis.
2. Eruption usually confined to the bearded region.	2. Very rarely confined to the bearded region.
3. Never affects the non-hairy skin.	3. Affects the non-hairy skin and the hairy parts alike.
4. The papules and pustules penetrated by hairs.	4. The papules and pustules never penetrated by hairs.
5. Always a diffuse redness.	5. Rarely any diffuse redness.

6. Always symmetrical.	6. If confined to the bearded portion of the face, never symmetrical.
7. Chronic, but never ulcerates.	7. If chronic, always proceeds to ulceration.
8. Accompanied by pricking, smarting or burning sensation.	8. Little subjective sensation.
9. Secretions not necessarily accompanied by an offensive odor.	9. Generally accompanied by a very offensive odor.
10. Will not yield to syphilitic treatment.	10. Generally yields readily to syphilitic treatment.

Treatment.—The disease being a local one and caused, or at least aggravated or perpetuated, by the irritation of the hairs in the follicles, the treatment must be more or less local in character, and the hairs must receive due consideration. Although this disease is not necessarily caused by constitutional derangement, inasmuch as every local disease is influenced more or less by the constitutional condition, and sycosis is sometimes partly caused by the constitutional condition, the treatment must be directed to that condition also. Like most other diseases the local treatment must vary more or less with the conditions present, it must be stimulating or soothing according as the part is actively inflamed or in a subacute or chronic state of inflammation.

Now, very frequently the cases as we meet with them have a great mass of crusting on the surface; then the treatment must be directed first to the crusting. If the beard is long, it is generally well to clip it as closely as possible before beginning treatment; then the crusts must be softened up by the application of some oleaginous preparation. If the inflammation is acute, a linseed poultice is better than the oleaginous preparation; because, in addition to softening the crusts, it will allay the acute inflammation. When the crusts are thoroughly softened, they must be carefully and gently removed with soap and warm water. If the inflammation is very acute it is well to again apply some soothing application, such as some mild ointment or carron oil (equal parts of oil and lime-water), lead and opium wash, etc. As soon as the acute inflammation has passed off, the hairs that act as foreign bodies to the hair follicles must be either removed by epilation or extraction or carefully shaved off. The better way, probably, is to extract the loose hairs from the pustules. Shaving, however, sometimes answers the purpose, inasmuch as the hairs, when cut close to the surface, do not irritate the inflamed follicles by their movements as much as when they project to any extent. After the loose hairs are picked out or the parts are shaved, or both, as the case may be, apply remedies as you would to any diseased surface with a view to healing it up. In this case we will first apply citrine ointment —one drachm to eight of lard or vaseline— three times a day. Very soon the crusts will be softened; and then we will instruct the patient to wash off the crusts with soap and water. After that, we will have him dust on an impalpable powder of boric acid. This is about all the treatment we can give him at present. We will then watch him, and from time to time, as the symptoms seem to indicate it, after the crusts are removed, we will either shave the hairs off close with a sharp razor or extract them. Sometimes a plaster of diachylon ointment, applied on linen and allowed to remain, is very effective, as it seals up the part from atmospheric and other irritating influences, and at the same time stays the parts so that the hairs do not, by their movements, irritate the follicles.

COMMUNICATIONS.

A CASE OF ABORTION WITH SEQUELLÆ.

BY A. C. HAWLEY, M. D.,

EATON, OHIO.

About the first of April, 1889, I was consulted by Mrs. Y., whom I had delivered of a baby nine months before, as to the probability of her being pregnant. Some symptoms were present which had suggested pregnancy to her. Most prominent among these had been the absence of her menstrual flow at her last regular period, yet, as she was nursing so young a child she could scarcely think that she was pregnant and dreaded the idea under any circumstances. I told her that the probability was that she was so. She hinted at interfering with the progress of gestation; but this I discouraged from a moral point of view, showing her the great risk she would run of sacrificing her life, and if not her life, her health.

Here the case rested until the first of May, 1889, when the patient's husband came into

my office, stating that his wife was not feeling very well, and that she had been having a slight "wasting" for a few days, though he thought it was not serious. I elicited enough from him to conclude that the probabilities were that an abortion was threatening and that the hemorrhage was serious, and I had better see her at once. The place was seven miles distant in the country; and, when I arrived at the bedside, I found that the hemorrhage had been profuse, although not yet enough to produce any immediate alarming effects upon the patient. Upon inquiry I found that two weeks before this hemorrhage the patient was holding a mare by the bit, and the animal, in trying to free itself, had given the woman a severe jerk which lifted her off the ground. This immediately caused a free hemorrhage which lasted for a short time. Since then there had been no appearance of bleeding until the present hemorrhage, which started when she made an attempt to lift the baby from the floor. She knew nothing of what had passed from her during either of her hemorrhages. She had seen nothing but the blood; and, consequently, it was one of those obscure cases which we all dread so much to meet. Upon digital examination I found the os but slightly dilated. There had not been any pain. Believing that the process of gestation was too far interrupted to prevent abortion, I set about to produce pains and to effect expulsion of the contents of the uterus, well remembering the oft-repeated maxim of Professor W. H. Taylor that "an empty uterus is the only safe uterus."

I thoroughly tamponed the vagina with cotton balls, and left the patient, to be seen again early the following morning. When I returned I found there had been no pains and the hemorrhage had been so slight as to hardly color the cotton next to the os. I now concluded that the contents of the uterus had been thrown off the day before. Here I instituted a cross-examination and found, from the husband, that he had seen the day before what he had supposed was a fetus, but whether or not any of the membranes had passed, he did not know. For the sake of safety I tamponed again, and returned in the evening to find no pain and a slight discharge, as in the morning. But yet, to be doubly certain and, if at all possible, to elicit pains and the expulsion of the contents of the uterus without introducing instruments, I introduced a sponge tent and then tamponed the vagina, and ordered perfect quiet and teaspoonful doses of the fluid extract ergot every three hours. I returned in the morning to find that no pains had been produced, but, on removal of the tent I found a good sized shred of membrane had been brought away.

I now thought the trouble ended; but, for the satisfaction of the family and my own comfort, I had my father, Dr. Albert Hawley, called. After a careful examination we agreed that, in all probability, the danger from hemorrhage had passed, and thought that with tonics and constitutional treatment, the patient would get along and soon be able to be around.

I visited her on the fourth, fifth and sixth of the month. At the last visit I found that she was doing so well that I dismissed the case, congratulating myself that I had disposed of one of those dreaded obscure abortion cases in a satisfactory manner. On the morning of the eighth of May a man drove up to my office, with his horse all in a foam, and asked me to come as quickly as possible to Mrs. Y., saying that she was almost dead. I hurried to the scene, and found my patient bleeding frightfully. The bed was saturated, the patient was pulseless, almost voiceless, and fainting repeatedly. I immediately dispatched the husband for my father, while I proceeded to inject cold water (there being no hot water in the house) into the vaginal canal, and gave a hypodermic injection of an aqueous solution of ergotine, which I always carry in my obstetrical bag. These means not being as effectual as one would wish in such emergencies, I thrust my hand into the vagina and my finger through the cervical canal, hoping thus to stop the hemorrhage mechanically, and at the same time to remove the offending contents of the uterus, which I found to be the mass of the membranes of a pregnancy of about eight or ten weeks' duration. These membranes were firm and adherent to the walls of the uterus. I tried to loosen them with my finger and a dull curette, and to drag them away with the uterine dressing forceps, but failed. All this time the patient was fainting repeatedly and death seemed imminent. After the arrival of my father, we again attempted the removal of the membranes, but it was only after repeated attempts and failures that I was able to bring away a mass of "fleshy degenerated" membrane, and by one or two more like manipulations separated and brought away all the membranes, and the

operation was at last completed. The woman was almost lifeless. We administered stimulants freely, and I remained by her bedside all night; and, to my delight, found that she gained rapidly, and that by morning the heart's action was good. I left her early in the morning, ordering perfect quiet, whiskey, quinine, and tincture of chloride of iron eighteen to twenty drops four times a day. From this time on there was no hemorrhage, and the patient improved unusually rapidly, until the morning of May 20, when I found her complaining of severe pain in the right side. There was no acceleration of the pulse, no elevation of temperature, no cough, and but a slight increase of rapidity of respiration. With hot moist applications and light anodyne treatment the pain was soon allayed, and the patient rested well until May 22, when the pain again appeared and became fairly seated about the region of the fourth and fifth ribs, and all the symptoms of a well marked severe case of pleurisy were present excepting the fever—the temperature not being more than one degree above normal. Effusion, which covered a little less than two-thirds of the lung, took place.

This trouble was subsiding nicely when, in a few days, a lobar pneumonia of the right lung developed (the same lung which was being drowned by the pleuritic effusion), which, with the effusion, almost excluded the air from this lung. The prognosis in the case grew grave, but within a week or ten days the symptoms began to ameliorate, and the indications were that she would soon recover. But no sooner had the right lung begun to act fairly well, than the left was also attacked with pneumonia, and the symptoms grew graver than they yet had been. The patient became discouraged; her appetite and strength failed; and the host of attendants of long-continued sickness were present. But, after some time, the disease began to abate, and our patient was again on the high-road to recovery, and rapid strides were made.

She had so far recovered that she had begun to want to get up to stool, when, on the evening of June 7, she made her first attempt to get out of bed. Soon after returning to bed she began to complain of pain in the calf of the left leg; and, on my return in the morning, I found her suffering greatly from the pain. There was no tenderness except in the calf, and no pain along the course of the larger veins; but on the following day I found the entire limb swollen, and the region of the larger veins very painful and the veins cordy. The temperature was 102° F. The limb was well elevated, and heat was kept applied constantly, and an occasional anodyne application was made, and morphia was given to relieve the pain. This treatment was continued for several days before any change towards improvement was noticeable. Perfect quiet was observed for six or eight days, lest the slightest disturbance might liberate the thrombus, which I believed to be the cause of the phlegmasia-dolens. By the eighth or tenth day the heat and pain had diminished, but it scarcely need be remarked that the swelling had not then subsided; nor has it yet. I dismissed the patient about June 20, on the high-road to recovery. She gained rapidly, and by July 4 was going about on crutches. By the twentieth of the month she had dispensed with these, and at present she is able to do all her work as a farmer's wife. Her limb is gradually growing smaller and her general health was never better.

TROPHO-NEUROSIS AS A FACTOR IN THE PHENOMENA OF SYPHILIS.[1]

BY G. FRANK LYDSTON, M. D.,

CHICAGO, ILL.

In studying some of the late, or sequelar, lesions of syphilis, particularly those involving changes in the bony structures of the head and face, I have been forcibly impressed by certain characters of the lesions which seem to depend upon a more occult series of pathological changes than those to which they are usually accredited. Some of these characteristics pertain also to many of the lesions of the active or secondary period of syphilis.

The relation of certain syphilitic phenomena to organic or functional disturbances of the nervous system—and particularly the sympathetic system—is certainly manifested here and there along the whole line of morbid phenomena developed in the course of the disease. The so-called syphilitic fever, while an inconstant phenomenon, is present in a sufficient number of cases of the disease to practically settle the question of the

[1] Read at the meeting of the Southern Surgical and Gynecological Association.

relation of cause and effect. The symptoms which we designate collectively as syphilitic fever are, in common with some other febrile constitutional disturbances, undoubtedly dependent upon the action of a special poison upon the sympathetic nervous system. It is logical to infer from what we know of the physiology of the sympathetic system, and particularly of those functions of the sympathetic, which we term trophic, that the majority of fevers—if not all—are directly dependent upon the action of the specific poison upon the sympathetic ganglia, which action is manifested by the disturbed metabolism and the resulting phenomena of fever. So in the case of syphilis the poison may produce so profound an impression upon the sympathetic ganglia that the trophic function of this portion of the nervous system is disturbed, with an attendant perversion of tissue metabolism, a resultant excessive production of animal heat, and the accumulation in the system of the toxic products of perverted physio-chemical change. The fact that so-called syphilitic fever is not a constant phenomenon, but affects only a certain portion of individuals attacked by syphilis is explicable upon the ground of idiosyncrasy.

The argument that syphilitic fever is the result of an impression produced by the syphilitic poison upon the sympathetic nervous system does not necessarily imply—nor do I intend it to do so—that the syphilitic fever is a part of the natural course of the disease. On the contrary, I believe that it is accidental and the result of idiosyncrasy. We know that different individuals are variously affected by the constitutional impression of organic poisons. Certain individuals are affected by urticaria or erythema upon the ingestion of shell-fish, this result being especially apt to follow when the particular article of food is not perfectly fresh or was not in an absolutely healthy condition when taken for food. Some persons are seriously affected by the ingestion of certain vegetables—especially if partial decomposition has occurred. Canned vegetables, and especially tomatoes, are liable to impeachment upon this ground. If it is fair to infer that by virtue of idiosyncrasy the nervous system of certain individuals may be morbidly impressed by certain food substances which are innocuous to the majority of individuals, it is certainly fair to assume that in the case of so powerful an organic poison as that of syphilis, with which a large number of individuals are inevitably inoculated, certain special and exceptional phenomena might be produced in some persons.

Attendant upon, or following the syphilitic fever, or occurring independently of it, we have a characteristic manifestation of syphilis, which in cases unmodified by treatment is probably always present in greater or less degree. I refer to syphilitic roseola. This eruption has been shown to be unlike the other phenomena of syphilis in that it is dependent, not upon a localized collection of proliferating syphilized cells, but upon vaso-motor disturbances, the essential objective element of which consists in dilatation of the capillaries in localized areas of the skin. This, as far as we are able positively to determine, is dependent upon the impression of the syphilitic poison—virus, bacillus, degraded cell, or whatever term may be selected to designate it—upon the central sympathetic system. This impression is essentially the same as that produced by certain vegetable poisons. It is not, however, dependent upon idiosyncrasy, although it may be modified by it; thus we find in some individuals a very marked roseola, in which the lesions are disseminated over a large area of the integumentary surface and are very prominent and well-defined; whereas in others we may find upon close inspection perhaps but a single lesion. The gradations between the two extremes are very various. Idiosyncrasy might be advanced quite plausibly as the explanation of this wide variation.

The action of certain drugs given for medicinal purposes is a further illustration of the results of various poisons upon the sympathetic nervous system as manifested by the appearance of morbid cutaneous phenomena. Belladonna, quinine, opium, copaiva, chloral, salicylic acid and numerous other drugs have been found to produce, in exceptional cases, an efflorescence upon the skin. The rarity of such phenomena, in conjunction with other proofs of idiosyncrasy and the known properties of these various drugs as far as their action upon the skin is concerned, are positive evidences of their neurotic character.

The lesions of syphilis which succeed the roseola have been so positively demonstrated to be dependent upon a localized deposit and proliferation of syphilized cell material that it would appear to be impossible to apply the neurotic theory to them. It is only necessary, however, it appears to me, to direct attention to the marked symmetry

which characterizes the peripheral phenomena of syphilis to at once suggest the probability of a central nervous element in the production of the various lesions. It is admitted, to be sure, that a symmetrical development of eruptive lesions occurs in some other affections. It will be found, however, that in them a nervous element is either positively demonstrable, or the skin lesions are so abundant and general that it would be impossible that they should be otherwise than symmetrical.

As a most positive proof of the relation of eruptions of the skin to nervous disturbance of a presumably trophic character, I have but to allude to herpes zoster. In this disease we find an accurate delineation of the course of the affected nerve by the eruption, and a very manifest local disturbance of nutrition of the affected tissues. Generally some portion of only one side of the body is affected by this disease. It is sometimes bilateral, and consequently of a more serious character than usual. Some of the later lesions of syphilis are unilateral; and, as will be shown by a case shortly to be described, almost as plainly referable to the distribution of a particular nerve as is the case with herpes zoster.

Professor Otis, following Biesiadecki and others, has shown that the predilection of syphilitical material for the papillæ of the skin, is due to the fact that it is at this point that the arterial, venous and intervening lymphatic capillaries come into the most intimate contact—in other words, that it is in the papillæ of the skin that the narrowest points in the circulatory and lymphatic flow are to be found. The affinity of the syphilitic process for lymphatic structures explains the rest; and we have at various points in the superfices of the body a localized heaping up of the so-called syphilized cells. We have, however, in the roseola, localized and circumscribed phenomena which are not satisfactorily explicable upon anatomical grounds. Why does not the roseola appear in one continuous blush over the entire surface of the body? Is it not because the impression of the syphilitic poison upon the system is manifested through a vaso-motor disturbance of the function of the sympathetic ganglia at certain terminals in the skin? Dr. Otis accepts the neurotic origin of the roseola, and it is a matter of surprise that he should seek for a local anatomical explanation of the development of, for example, the syphilitic papule. In view of the logical explanation of the roseola, would it it not be fair to infer that a similar condition of affairs prevails in the case of the other eruptions? That is, that, as a consequence of an impression made by the syphilitic poison upon the sympathetic ganglia, their trophic functions are disturbed with a consequent disturbance of nutrition and perverted tissue building at certain points upon the periphery or superfices of the body? I do not know whether this explanation of the secondary eruptions of syphilis has ever been advanced; but it has for some time appeared to me to be the most logical explanation of the phenomena of syphilis. It is particularly satisfactory, from the fact that it covers not only the roseola and papule, but every other lesion which may occur throughout the entire course of syphilis.

There is, perhaps, no morbid phenomenon characteristic of active syphilis which is more difficult of explanation upon purely mechanical grounds than the alopecia which occurs during the secondary period. Very few cases, if any, which are unmodified by treatment, escape this disagreeable symptom of the disease. Indeed, under the most careful and scientific treatment, a greater or less degree of alopecia is frequently observed. The shedding of the hair is limited chiefly to the scalp. The eyebrows are affected, but the beard is little, if at all, involved, as a rule. Other hairy parts of the body are not generally involved, even though there may be a quite general eruption over the surface of the body. Should destructive lesions occur in any situation supplied by hair, a temporary or even permanent shedding will be likely to result. The manner in which the hair is shed from the scalp is most striking and characteristic, in most cases. Instead of there being a general shedding, the process seems to affect the scalp in spots, as a consequence of which the head assumes an embarrassing piebald appearance, which he who runs may read. Otis and others attribute this alopecia to an accumulation of syphilized germinal material in and about the hair follicles, this deposit producing mechanical impairment of nutrition of the hair, as a consequence of which it is cast off. Strange to say, however, if this theory be correct, lesions of the scalp of sufficient prominence to attract attention are quite rarely associated with alopecia. A few small papules, pustules and crusts are occasionally found, but hardly ever in sufficient amount to account for the extensive falling of the hair.

It will be found, to be sure, that at the site of such lesions the hair invariably falls out. Now, it seems to me that, if the syphilitic material had such an affinity for the scalp as would be indicated by the theory of localized cell deposit, the cutaneous lesions of this portion of the integumentary surface would be especially pronounced. It is hardly probable that, in the presence of such an affinity for the hair follicles, a deposit of syphilitic material would accumulate to such an extent as would be sufficient to deprive the hair follicle of nutrition, and yet fall short of a sufficient amount to be perceptible externally. There may be, it is true, more or less accumulation of germinal material in the hair follicles, but there yet remains the necessity for an explanation of its deposition in this location.

From these considerations, I have been led to believe that the alopecia of syphilis is precisely similar to that which occurs in other diseases as a consequence of local malnutrition incidental to disturbed nervous supply and general malnutrition. In certain fevers for example, shedding of the hair is quite common during convalescence—perhaps well along in the period of convalescence. This is due to a general perversion of nutrition which must necessarily affect an epidermal structure of a low grade of vitality, such as the hair. This perversion of nutrition is in my opinion due to a greater or less extent to disturbance of the functions of the sympathetic nervous system—in other words, to a tropho-neurosis. Various morbid disturbances of the nervous system are known to affect the vitality of the hair. Thus, fright has been known to induce a blanching of the hair, unquestionably dependent upon perversion of the functions of the sympathetic ganglia. Neuralgic affections of the head are well known to produce both blanching and falling of the hair, perhaps limited to the distribution of the terminal filaments of a single nerve. As a further illustration of the relation of malnutrition, probably dependent upon perversion of the functions of the sympathetic nervous system, to falling of the hair, may be mentioned the alopecia resulting from the excessive use of arsenic internally.

The relative immunity which the beard of the male enjoys, as compared with the hair of the scalp, is probably dependent upon the greater intrinsic strength of the hair growth and the higher vascularity of the tissues of the face.

It would appear that syphilitic infection not only has a peculiar affinity for the sympathetic nervous system, but that this affinity is particularly marked in the case of the upper or cervical portion of the sympathetic. The proportion of lesions about the head, face and mouth is relatively much larger even under the best of treatment, than in other portions of the body. The parts supplied by the fifth cranial nerve appear to be especially susceptible. Very many of the cases with which I meet in private practice escape general cutaneous eruptions under appropriate treatment. Few, indeed, no matter how thoroughly they may be treated, are not affected at one time or another with lesions of the lips, inner surface of the cheeks, tongue, throat and scalp. I find that falling of the hair, sore throat and mucous patches are to be anticipated, in the larger proportion of cases, in spite of the most careful treatment. In my experience I have had very few cases in which, with conscientious attention to treatment, the patients have been annoyed by cutaneous eruptions, bone lesions, etc.; but I have had a number in which oral and pharyngeal lesions proved a source of great annoyance. Even in the late and seqular syphilides this same predilection for the structures of the face and throat is manifest. Cases are frequently met with in which the initiatory and active periods of the disease have been passed through without serious trouble, when serious destruction of the nasal, palatal and maxillary bones has developed suddenly and without warning. Many cases of serious destructive ulceration of the pharynx are met with, as remote manifestations of syphilis, in cases in which annoyance has been escaped during the earlier periods of the disease.

The affinity of the syphilitic process for the iris may possibly be explicable from the important function of those filaments of the sympathetic system supplied to this part; in other words, the local accumulation of cells in the iris may be incidental to disturbances of nutrition dependent upon the impression of the syphilitic poison upon the central sympathetic system.

[TO BE CONCLUDED.]

—Jambul, given to animals previously made diabetic by phloridzin, is said to correct the pathological excretion in animals experimented upon.

PNEUMONIA: ITS TREATMENT.

(THIRD PAPER.)

BY HIRAM CORSON, M. D.,
CONSHOHOCKEN, PA.

I do not wish to convey the impression that the means which I shall recommend for the heavy congestions and speedy inflammations which occur—the kind which so generally prove fatal under the reformed (?) treatment—are needful in all the cases included under the name pneumonia by many practitioners. I have in my mind measures to save patients from death who suffer from the most acute and violent attacks. I have read Prof. James Tyson's paper; and though it is, as all his writings are, earnest and full of thought, and though this one is so greatly in advance of the treatment by Prof. Osler, whose place as clinical teacher he now fills, I feel that there are a few opinions in it which he will abandon if he should chance to see the great relief brought to patients suffering from suffocation (such as was borne by young Mr. Blaine), by a judicious blood-letting. Such cases I shall present, and show how immediate the relief. Again Dr. Tyson has said: "I am as much opposed to the *routine bleeding* in pneumonia as I am to the *let alone policy* of to-day," though he never bled a case. To this I answer, that we have no routine treatment, but conscientiously and under the guidance of long and successful practice with various measures, determine when any one, or more of them is needed, and use it unawed by popular clamor. Before reporting the cases so similar to Mr. Blaine's, allow me to say that I believe the popularity of some of the new medicines and opposition to the old depleting treatment of Professor George B. Wood, Professor N. S. Davis, and other eminent authors, grew out of the fact that many physicians called trifling bronchial affections pneumonia, prescribed some favorite arterial sedative, or aromatic spirits of ammonia, so relied on by Dr. Osler, or carbonate of ammonia, and as the patient got well, vaunted the remedy as useful in pneumonia. Then, when a real case like that of Rev. Dr. Vinton, Dr. S. W. Gross, Judge Mercur, Walker Blaine, or the many who have fallen victims to this boasted treatment, is met with, these medicines are tried and the patient is lost.

In the MEDICAL AND SURGICAL REPORTER of November 30, 1889, there is reported a clinical lecture by Professor Da Costa, describing a case which, on carefully reading, I could not regard as one of pneumonia. There was some pain in the side of the chest on *forced* inspiration; no rusty-colored sputum; but strong pains in the leg, below the knee, as the prominent symptom. It appeared to me to be a case of one who, from exposure, was beset by pains in various parts of the body with soreness of the muscles, and with general malaise, all of which might be remedied by an anodyne and a few hours' rest in bed, and the patient be put on his feet again. I hope your readers will read the case carefully and pass judgment on it. Distrusting somewhat my judgment in the case, inasmuch as it came from such a distinguished diagnostician, I wrote to three subscribers to the REPORTER, men of much experience and undoubted truth, for their opinions.

One of them, a man of distinguished ability and a practitioner of many years, wrote as follows: "As to the article to which you refer in the REPORTER, I am not at all convinced that the case was one of pneumonia. From the report of it, which at best is exceedingly indefinite to form any decided conclusions from, I should rather incline to regard it as a case of malarial fever, with congestion of the lungs as the complication which misled the diagnostician. At any rate, so far as drugs did any good, I think quinine was the one to which it could most reasonably be ascribed. I may say, too, that my assistant, who has been interviewed in regard to the case, is of the same opinion that I am."

The other two could not recognize the case as one of pneumonia. But why need I notice it? The patient recovered. Yes, he recovered, as many patients do even when we err in treatment. But I review the case to show that it is the regarding of such cases as pneumonia which leads to the belief that the medicines used in their treatment may be relied on in any case of that disease, and thus inexperienced physicians may be led to rely on them in acute dangerous cases, and the patient be lost. I have great respect for Dr. Da Costa, know how eminent he is as a diagnostician, but that is no bar to my holding an opinion different from his. I do not want the minds of students led away from the suffering lung in real acute pneumonia by diffused pains in other parts of the body—"or pain in the lower part of the right leg and foot"—or

even, in the "region of the ileo-cæcal valve." I have no doubt that this is now down in every note-book that was at the lecture, and hereafter, should one of the audience be called to a patient suffering pains in those places he will diagnosticate "pneumonia—with absence of rusty-colored sputum." If there are no means to cure such cases as those of Dr. S. W. Gross, Dr. Bruen, Judge Mercur, and scores of others with whom the reformed practice failed, then it is time to look about for something better than the present popular but inefficient treatment.

I shall now give the views of some practitioners well acquainted with the properties of the various remedies in favor now, and who have also had many years' experience—actual experience with other measures now so greatly and ignorantly denounced. How strange it seems to those who practiced when blood-letting was freely used in pneumonia and other inflammatory diseases, to hear men and—worse than all—teachers, who never saw it practiced, prate against it. "What do they say of it?" "That it is never necessary; that it is dangerous; that it does not give relief, but weakens the system, so that it cannot bear the depressing effects of the third stage; and that it leads certainly to heart-failure."

My object, now that I have shown that the disease is a congestion of the lungs quickly followed by inflammation, is to prove that the charges against blood-letting in the treatment of pneumonia and other acute inflammations of the body are not well founded, but that venesection is a most safe and efficient remedy, which, when judiciously used, prevents the third stage in pneumonia, and also heart-failure by curing the disease before either condition is reached—conditions which I have prevented many times. Surely there is no man, experienced in the treatment of pneumonia, who does not know that the disease can be arrested before the inflammation has reached the third stage: a stage in which Prof. George B. Wood has said, "It is doubtful whether recovery ever takes place."

The arterial sedative practice allows it to reach that stage when the patient does not die early, and he dies then or is crippled with chronic lung disease for life. Where persons are cured by blood-letting in the first or second stages, as they usually are when it is used, they come out of it with perfect lungs. And now for my proofs that we have means to cure the worst cases.

Dr. Wm. McKenzie, a graduate of the Class of 1871, University of Pennsylvania, doing a large practice, writes:

"*Case 1.*—I was called, January 6, to a German, 56 years old, who has always enjoyed good health, suffering with violent frontal headache, pain in the back and limbs, with tight feelings. With these symptoms I diagnosticated *La Grippe.* I prescribed for him, and by January 10 he was down-stairs. On January 13 I was called, and found him in bed breathing with difficulty. He had pain in left side, his face was flushed, and he said he had a chill the previous evening. His temperature was 103°, his pulse 118, and his left lung was filled with crepitant râles. I then saw that I had to do with what would soon be a severe pneumonia, and that if the inflammation was not speedily controlled it would result in death to my patient. I at once bled him freely. I usually bleed in a sitting posture and allow the blood to flow until fainting is produced, but in this case I allowed the man to lie down, and fully twenty-six ounces were taken before there was a change in the rate or character of the pulse. A large blister was then placed on the side and allowed to remain eight hours, then to be dressed with a poultice. When I called in the afternoon I found him very comfortable, breathing easily, with very little cough and only slight pain in the chest. The after-treatment consisted in an expectorant of muriate of ammonia and sulphate of morphia. He steadily improved, and convalesced in a few days. I have practiced since 1871, and every Spring and Fall have had cases of pneumonia to treat. With but few exceptions I have bled them all, and during all these years have had but three deaths. The above case illustrates my treatment. I make no account of age, but find that the old are just as much benefited by blood-letting as the young."

"*Case 2.*—M. S., 63 years old, feeble and much exhausted from nursing her husband, who was buried the day before I was called to see her. I found her with great difficulty of breathing and unable to speak above a whisper, with great pain in the chest and expectorating rusty-colored sputa. She was poor and had to rely on the neighbors for nursing. I resolved to bleed her, and asked for a basin. 'Oh, doctor!' said several of the women present, 'is she not too weak to be bled?' 'Never mind about her weakness; if I do not bleed her she will surely

die, and I propose to do the best for her.' I propped her up and bled her until she fell over in a faint. The arm was then tied up and she was placed in a horizontal position, and in a few minutes consciousness returned. I gave one-sixteenth grain of sulphate of morphia every three hours; and in a week she was well."

"*Case 3.*—While attending the last patient, R. B., 18 years old, and living in the next house, was taken sick. He was strong and robust. He had had a chill the evening before I was called, followed by high fever, rapid and bounding pulse, pain in the side, and expectoration of rusty sputa. He was freely bled, and in a few days was out again. Simultaneously with the last two cases, an aunt of the last one, living only a short distance away, was taken with pneumonia, and was attended by a physician who 'does not believe in blood-letting in any case.' She was a stout, healthy woman, forty-five years of age; and yet she died after less than a week's sickness. Judging from my success in the other cases, I am confident that, had she been bled judiciously, she would have recovered. I regard the responsibility of the doctor in this case as very great, as I was informed that the relations requested him to bleed her. He declined on the ground 'that no well-posted physician in this advanced age of medical knowledge would bleed a patient.'"

Dr. George N. Highley, a graduate of the University of Pennsylvania, 1881, and doing a large practice in Conshohocken, writes as follows:

"*Case 1.*—Pneumonia.—Mrs. S., about 45 years old, mother of ten children, much broken in health by hard work and frequent child-bearing, was taken with a chill in the night of April 8, 1889, and this was followed by high fever. She had complained of her left side for a day or two, and had a cough. I was called to see her on the morning of April 9. I found her lying partly on her left side, her countenance indicating much suffering, and she made great complaint of pain in the left side of the chest, which was measurably increased by movement and by the frequent hacking cough. Her pulse was 100, her respiration 32, her temp. 103°. Her expectoration was scanty, consisting of frothy mucus. Her skin was dry and her tongue coated. Auscultation revealed feeble respiratory murmur, or total absence thereof over the lower half of the left lung. There was dulness on percussion over the same region. Diagnosis: pneumonia. Treatment: half a grain of morphia and eight drops of tincture of aconite were given at once, and the following prescription was ordered:

℞ Potas. citrat. . . . . ℥i
Suc. limonis . . . . . f℥jss
Liq. morph. sulph.
Syr. ipecac . . . . . āā f℥ss
Aquam ad . . . . . f℥iv
M. Sig. A teaspoonful every two hours.

"The next morning, April 10, her case was alarming. She had had no relief from the treatment.[1] The pain and dyspnœa were very great; her pulse was 120; her temperature 104°; her respirations 45 or 50, and rusty sputa were expectorated. She believed death was near, and her distress was extreme. I now bled her about twenty ounces, and this gave her marked relief. The respirations immediately fell to 25; the pulse to 100. I then ordered one-fourth grain of morphia sulphate and the following:

℞ Ant. et potas. tart. . . . . gr. i
Potas. nitrat. . . . . ℥i
Syr. ipecac. . . . . f℥iii
Syr. pruni Virgin. . . . q. s. ad. ℥ii
M. Sig. Teaspoonful every three hours.

"The chest was covered with a layer of raw cotton on the first day; and no other local application was made during the woman's illness. I saw her twelve hours after the bleeding; she had then had some sleep and had been very easy all day. April 11, at 10 A. M., her pulse was 100; her respirations 22; she complained of soreness in the affected side; but had very little pain. I ordered two grains of quinine every three hours, alternating with the mixture. Her convalescence continued uninterruptedly. She was out of bed on the ninth day, and able to perform light house-work about ten days later. After the third day of her illness she was given milk, beef-tea, mutton-broth and the like. Before that time she had taken no food."

Dr. David R. Beaver, also a graduate of the University of Pennsylvania, of the class of 1864, and who has had a remarkably large practice from that time to the present moment, sends the following case, which occurred during the time of the *grippe* epidemic.

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[1] Strange, wasn't it? as the treatment was of the "reformed" kind.—H. C.

"I was called to see Mrs. C., mother of several children, and about fifty years old, December 12, 1889, and found her suffering from the effects of a chill after a carriage ride late in the afternoon. I prescribed for her and saw her in the forenoon of the next day, when I found her suffering with severe pain in the left side, or lung. There was great dulness in the lower two-thirds of the chest and great difficulty in breathing. She also had pain in the head, and in fact a general congestion of the whole surface, with rusty-colored sputa; all indicating pneumonia or pleura-pneumonia. The pulse was 120, the respirations were 24, the temperature was 103°. Considering the full or plethoric habit of the patient, I did not hesitate a moment, but bled her twenty-two ounces by actual measurement. This gave her the greatest relief; and she so expressed herself. She went on to make a good recovery, and her immediate family and friends were astonished at the result."

Such are the reports made to me by three Conshohocken physicians, the only medical men whom I asked about their treatment of pneumonia. Before making any general remarks on them I feel that the readers of the REPORTER will desire to know why Dr. Beaver added the last clause to his report, namely, "her immediate family and friends were astonished at the result!" They were astonished because so many eminent persons have been quickly carried off by the disease, that the very name carries terror with it; and so generally has blood-letting in this and in all diseases been denounced by teachers in medical colleges and by their graduates during the last twenty years, that, although the family had great confidence in their physician, yet that he should use this dangerous remedy here, in this generally fatal disease, alarmed them, and they believed death, and not relief and recovery would result. Hence their surprise.

These cases, so successfully treated by the three Conshohocken physicians—not with two or three consulting physicians to help them and share the responsibility, but each one by himself—were of the same kind as those which have carried off hundreds of noble men since Dr. Vinton was lost. Let us fancy now that some of those denouncers of the means used by Drs. Beaver, McKenzie and Highley had had these cases in charge, what would they have done to relieve them, when they were laboring for breath and threatened with suffocation? The first step would have been to have a consultation; then perhaps—what? I can't answer. Possibly they would conclude to wait for the crisis, and, while waiting, to give stimulants—whiskey, etc., to support the patient until the crisis—I mean the living crisis, still two days off, should come; not seeing that the crisis by death was but a few hours away.

I am shocked by the mere thought of the scene. The poor man, helpless and threatened with death, lying before them, his lungs overwhelmed with blood, every vessel distended to its utmost, stretched and thinned until the blood is being forced through their coats and fills the bronchi to the exclusion of all air—as he thus suffocates, what will the reformers do for him? I await their reply.

TREATMENT OF TYPHOID FEVER.[1]

BY S. E. ROBERTSON, M. D.,
NEWARK, N. J.

In discussing the treatment of typhoid fever, it is necessary to indicate what objects we desire to obtain by our efforts. The variety of symptoms is very large. Are our main efforts to be directed to the lowering of the temperature, the checking of the diarrhœa, the quieting of the delirium, the controlling of persistent epistaxis, to allaying an irritable stomach, healing the ulcers, or perhaps, most important of all, to sustaining the vital powers of the patient against the inroads of all or any of the above? If it is true—as it appears to me to be—that typhoid fever is a self-limited disease, the last idea would appear to me to be the principal one in any line of treatment. In ordinary cases the disease runs a course of about three weeks, more or less, in accordance with the number and severity of the complications, irrespective almost of any efforts to the contrary.

Most medical men appear to be satisfied that the cause of the disease is a micro-organism, and the removal of the cause should end the disease. But we do not appear to be able to remove the cause before its allotted period; as the disease still holds the fort for its usual period of three weeks

[1] Read before the Practitioners' Club.

or thereabouts. Others say, reduce the fever, and the patient will rise. But that is apparently beyond our control. The efforts of others are directed against the diarrhœa; but with no better result; and we very often see a severe type of this disease where there is no characteristic diarrhœa.

Our efforts towards shortening the duration of an attack of typhoid fever being futile, let us glance over the histories of a few cases, in order that we may observe what causes tend to produce death: a result that we must strive to prevent, whether the course of the disease is shortened or not. I will give the reports of a few cases only, in order to show the routine followed, and then I will speak of a few of the so-called "specifics."

Case 1. Patrick K., 29 years old, married, laborer, came under observation August 11, 1889. For two weeks before he had complained of pain in his head, legs and back; had also had fever; had drank well-water only. Upon examination I found his pulse 124, his temperature 105° F. He had a dry, coated tongue and tympanites; had had no diarrhœa, and there were no abdominal spots; but he had great thirst, and intense headache. I suspended my diagnosis and gave potassia bromide, grs. xx, every four hours, and antifebrin, grs. v, twice a day for two days. The temperature was 104° F. in the evening of the second day. The patient now had clay-colored stools frequently, and nose-bleed. I diagnosticated typhoid fever, stopped the antifebrin, and continued the bromide as before, with milk and brandy in as large quantities as the patient could take.

August 15 the temperature was 100° F. in the morning, with an evening exacerbation. August 19 the temperature was normal, and for five following days, when the patient's wife gave him a small piece of cake. That night the temperature was 106° F., but in four days it was normal again; and the patient rapidly convalesced.

Case 2. E. J., 27 years old, married, laborer, came under observation August 11, 1889. The patient was so weak that he was not questioned regarding his previous history. Examination disclosed the presence of hypostatic congestion of both lungs, persistent cough, rose-colored spots upon the abdomen, tympanites, a temperature of 105° F., and a pulse of 130. I ordered antifebrin, grs. v, night and morning, also spirits of nitrous ether and liq. ammonii acitatis, f℥i, each every two hours, milk and brandy, and counter-irritation to the chest. August 13, the temperature in the evening was 105°. August 14, it was 103° F. in the evening. August 15, it was 101° at noon, and the pulse 84. I ordered ammonii muriates grs. x, and tr. digitalis ♏ v, every three hours. August 17, the temperature was 106° F. in the afternoon, and I stopped the antifebrin. August 18, the temperature was 103° F. in the morning, and the patient had frequent clayey stools. From this out temperature gradually receded, until August 31, when it became normal and stayed so, the patient being well.

Case 3. L. G., 24 years old, single, came under observation August 11, 1889. The patient stated that he had not been feeling well for ten or twelve days; he had headache, pain in the back and limbs, epistaxis, diarrhœa, light, clay-colored stools, tympanites, dry, furred, brown tongue and rose-colored spots on the abdomen. Diagnosis: typhoid fever. The temperature was 104° F., the pulse 126. I ordered milk-diet and brandy, also carbolic acid, gtt. ii, in glycerine every four hours and cold sponging as required. August 12, the patient has had severe epistaxis; his temperature was 102° F., in the morning. August 15 the temperature was $104\frac{2}{5}°$ in the afternoon. I ordered antifebrin, grs. v, twice a day and free stimulation. August 17 there was no diarrhœa. The patient was delirious, the temperature $104\frac{2}{5}°$, the pulse 160. I ordered tr. digitalis ♏ x; ammon. carb., grs. v, every two hours. August 18 the temperature was $105\frac{4}{5}°$; the pulse could not be counted. August 19 the patient died of exhaustion.

Case 4. M. B., 22 years old, single, laborer, came under observation July 26, 1889. For two weeks before admission he had had pains in the back, legs and head, slight diarrhœa and no appetite. Upon examination he was found to have a temperature of 104° F. and a pulse of 130. July 27 he had severe diarrhœa and nose-bleed, tympanites, a few rose-colored spots on the abdomen, was delirious and violent; his temperature was 104° F. I ordered acid carbolici, gtt. ii, in glycerine every four hours; quiniæ sulphates, grs. v, tod., milk-diet and brandy. There was no change, except gradually lower temperature, until August 7, when the temperature was 100° F. Delirium had ceased, there was slight diarrhœa; and the pulse was 76. August 10 the temperature was 99°, and it kept so for five days, when the patient developed a

small boil on his forehead, and by August 22 the temperature rose to 103½°. The boil was opened, and the temperature gradually sank to normal by August 28, the patient being well.

Case 5. J. R., 19 years old, came under observation August 20, 1889. For two weeks he had had severe headache, pain in the back and limbs, diarrhœa, nose-bleed, high fever and constant vomiting. I diagnosticated typhoid fever and ordered oxalate of cerium, gr. ii, every hour, and what milk and brandy he could retain. For nine days this patient's stomach rejected almost everything given him; but the temperature, which was 104⅗° F., when he was first seen, gradually came down to 101° F., when he began to retain milk and brandy in moderate quantities and his temperature gradually fell to the normal point in ten days more; the diarrhœa stopped and the patient gradually convalesced. During this time his pulse was several times so weak and irregular that it could not be counted.

In the consideration of these cases, it will be noticed that milk and brandy were constantly used in the treatment of each case, and the departure from such a diet (*i. e.*, a liquid diet) was followed by a return of all the severe symptoms, and it is my desire to impress the fact that a strictly liquid diet appears to have a very important bearing upon the treatment of typhoid fever, as well as in all other acute febrile diseases.

In the first case antifebrin for two days, bromide of potash and liquid diet were the only means used; and when the liquid diet was interfered with—slight though the interference was—there was a return of all the symptoms, with a greater degree of severity. Some have extolled antifebrin as a specific in this disease; but in a large number of cases, in which I have seen it used, I have not once seen either a permanent or a prolonged reduction of the temperature; and, I fancy, I have always observed a certain amount of depression, and in several cases, great depression has followed its administration.

In the second case the patient was almost in collapse, and a further trial of the antifebrin was made, combined, however, with a stimulant preparation of ether and ammonia; but the temperature still rose, the antifibrin was stopped, and cold baths, free stimulation and liquid diet were ordered, with a happy result. In this case the antifebrin appeared to have an almost immediate depressing result after each administration of it. In the third case we have a severe typical case of typhoid fever, in which all the remedies mentioned above were tried, as well as one of the recent specifics, carbolic acid; but, notwithstanding all, death ensued. It is but fair to state that this patient, before coming under observation, had been drinking and eating, and living in a way contrary to the recognized laws of health; and the shock was more than his impaired constitution could withstand. In the fourth case, a counterpart of the third case—where quinine was substituted for antifebrin, the patient recovered in the usual time: a strictly liquid diet being insisted upon.

In case V, where the temperature was very high and persistent emesis was the most troublesome symptom, the oxalate of cerium was the only medicine used; fluid diet and full stimulation being carried out as fully as the condition of the stomach would allow.

In the treatment of some fifty odd cases of typhoid fever seen in hospital and private practice, where there occurred five deaths, I have come to place the most confidence in the following routine, varied for special cases: In the second week, which is the time when we are usually called, I prescribe quinine, sulph. gr. v, thrice daily, cold sponging several times a day, milk and brandy as freely as possible. If there is diarrhœa of more than four stools a day, paregoric f℥i is given after each stool; if there is great depression, digitalis and ammonia are given. Fresh air, warm bed-clothes and frequent changing of the bed-clothes are provided for. If there is hemorrhage from the bowels, five drops of turpentine are ordered to be given every hour with opium and absolute quiet. The quinine acts only as a tonic, I think; although it is given by some as a germicide. The sponging produces diaphoresis, and acts also as a tonic when not carried too far. In one hospital where the windows were removed from the fever wards, the mortality was *nil* in eighty cases, and in another fever ward in the same hospital, under the same physicians, the mortality was 22 per cent., showing a decided benefit from the fresh air.

Antipyrin has been greatly praised in typhoid fever, as an antipyretic, nerve sedative and germicide. I have used it in two cases, and found it had a quieting effect; but the range of temperature was not reduced, nor the time of convalescence hastened. Carbolic acid is perhaps more used than any

other antiseptic. I have seen it used extensively, and I must say, I have never observed any change in the condition of any patient when its use has been commenced or stopped. Tincture of iodine has been used alone and with carbolic acid with favorable results. I have not used it—I have used salicylate of soda instead of quinine, and have had about the same results as from quinine; but I think the stomach does not tolerate the salicylate for so long a period as it does the quinine. I have observed considerable irritability of the stomach from the salicylate of soda in typhoid fever. Calomel and bichloride of mercury have been used extensively years ago in this disease; and although they have fallen somewhat into disuse, I observe they are being highly spoken of in this connection in recent articles. Some writers recommend calomel in large doses during the first week of the disease, and in small doses later on: the idea being to get its germicidal virtues after thoroughly emptying the intestines. Bichloride of mercury in very small doses throughout the disease is said by its patrons to lessen the mortality and to decrease the severity of the symptoms. Thallin, boric acid and eucalyptus are also highly spoken of. Cocaine has been recommended by Da Costa as ameliorating the symptoms and hastening convalescence; but there has been urged the objection of its uncertain toxic effects. One writer states that the temperature is increased upon the ingestion of fluids; another takes the reverse as the basis of a long article upon the treatment of fevers generally and of typhoid fever in particular. The use of oxygen would appear to be rational; and it has been used, especially for its effects upon the temperature; while certain writers advise the administration of air containing an excess of nitrogen for the same effect, and probably pure air alone would be beneficial.

Nevin recommends good nursing, removal of irritation, and means to lower excessively high temperatures, with alimentation, as the chief requisites. Austin Flint has recently attracted considerable attention to his vigorous support of the so-called alcoholic treatment, upon physiological grounds alone; and, in such a manner, we could find fair authority for almost any treatment of typhoid fever: bleeding not being excepted. But it appears to me that the treatment of Nevin and Flint combined will show as small a death rate as any other.

PERISCOPE.

Simple Truss for Hernia in Children.

One of the most interesting, and, at the same time, one of the most important subjects in connection with the surgery of childhood, is that of congenital inguinal hernia. At the meeting of the Medical Society of London, held Feb. 3 and reported in the *Medical Press and Circular*, Feb. 12, 1890, Mr. Edmund Owen delivered the third Lettsomian lecture, in which he spoke at length on this subject. Mr. Owen said that at the outset of his remarks he would urge the expediency of regarding the defect not as a pathological entity, but merely as a sign or symptom. Generally it is but the sign of arrested development in connection with the obliteration of the funicular process of the peritoneum; often it is a symptom of some oft repeated and straining expiratory effort, such as that associated with whooping-cough, diarrhœa, chronic constipation, rectal polypus, vesical calculus, or impeded micturition. Therefore, in every case of congenital hernia, the surgeon should make it his first duty to try and discover the cause of the protrusion, and promptly direct his attention thereto. If the only discoverable cause be a patency of the funicular process, the surgeon will help the case by applying a little pressure over the inguinal region, so as to prevent further descent of the bowel and thus give the tubular process the opportunity of completing its obliteration. Mr. Owen said that he recently had had a male infant under his care in whom he had produced an inguinal hernia by applying an appropriate bandage for the treatment of a troublesome umbilical rupture. When first seen by Mr. Owen, the infant was apparently sound in the inguinal region, and there was no history of his having had, at any time, any other protrusion than that of the navel, which, by the by, demanded unusually firm repression; but when this, at last, was firmly imprisoned, the bowel escaped by the scrotum. Mr. Owen does not remember having met with any other case in which a second protrusion had been brought about in this manner. Doubtless, as development proceeded, and the abdomen obtained its proper proportion, there would be ample accommodation for all the viscera.

At an early period of intra-uterine life the abdominal cavity is for this purpose alto-

gether inadequate, and that, being open in the front, the viscera remain for a considerable time spread upon the front of its anterior wall, and that afterwards, as growth increases, space is arranged for their reception within the embrace of the abdominal walls. After birth if the three chief apertures are not securely closed, forced expulsive efforts are apt to drive a knuckle of bowel, or something more from the interior of the general cavity.

With the view of diminishing the risk of violent expiratory efforts, the surgeon will try to arrange that the infant takes enough food to prevent his crying for more, and yet not enough to make himself strain with vomiting. He will also keep the infant as much as possible in an horizontal position.

For tender infants spring-trusses are ill-suited ; the necessary pressure may be usually obtained by employing a skein of wool after the manner described by Mr. Lund and originally suggested, I believe, by the late Mr. Coates, of Salisbury : A folded skein of Berlin wool should have the loop laid over the emptied inguinal canal, the ends being carried across the abdomen above the crest of the ilium, of the sound side, across the back, and then forward along the crest of the ilium of the ruptured side. The ends are then passed through the inguinal loop, and carried backward round the inner side of the thigh, and across the buttock, to be firmly secured to that part of the skein which is already just above the great trochanter. The infant can be washed with this truss on, a fresh one being subsequently applied. Mr. Owen said that his experience with this simple apparatus is that the monthly nurse, or child's nurse, quickly sees its value, and interests herself in applying the skein ; that there is no fear of its making the child sore, or of hurting him, and that with average skill and care, its compression can be directed in so exact and efficient a manner as in time to produce effacement of the weakness.

Supposing that there is a tight prepuce, the indication for treatment is obvious. If, after the most careful inquiries, no cause for the hernia can be discovered, and if the use of the skein of worsted proves disappointing, a truss must be carefully chosen and adjusted. If the hernia be troublesome the compression should be enacted by night as well as by day, for it is great matter never to give the bowel the chance of coming down. As a rule, the truss which the instrument maker chooses for the child is needlessly strong in the spring, and the skin becoming red and sore all pressure has to be remitted for a while. This is, of course, most unfortunate. Occasionally I have seen an extensive ulcer marking the site at which the pad pressed. The band and pad of every truss should be covered with a soft piece of linen, and the area of skin which is pressed upon, should be washed and dried with extra attention, and then dusted with violet powder.

It is a matter of almost daily experience that with the exercise of due care in the choice of the truss, and with patience in its subsequent employment, the child may be expected to "grow out of" his trouble. It will be impossible to say at the outset when the cure will be effected. Many children lose the defect within the first year ; in some the treatment has to be carried on through several years, and in others the cure does not arrive till puberty. Lastly, there are some cases in which, though manhood has been reached, the truss must not be discarded.

Occasionally one sees a child wearing a truss where there is absolutely no need for pressure in the inguinal region, and where its employment must therefore be harmful ; when, the funicular process of peritoneum having been obliterated, the risk of descent of the bowel has become a thing of the past. And, further, on rare occasions a child is found wearing a truss who has not, and who never has had, any inguinal hernia whatever.

The class of cases in which this last-error is most likely to be committed is that in which the peritoneal process has been occluded at the internal abdominal end and also over the lower part of the cord, but in which the intermediate portion is dilated into an encysted hydrocele. It is by no means easy in some of these cases to make up one's mind as to the nature of the rounded tumor, especially if it be lodged within the inguinal canal, and, therefore, beyond the reach of examination by a lighted taper. But the fact of the tumor remaining of the same size day after day, and of its being irreducible and hard, without the chill exhibiting symptoms of strangulation, is generally sufficient in the way of diagnosis. In such a case the introduction of the hollow needle of a hypodermic syringe resolves the tumor and the doubt.

Impotence.

Impotence, or, as it is sometimes called, sterility in the male, may be classified under two heads: aspermatism and azoöspermism. In aspermatism no ejection of seminal fluid occurs during coition. This may be because no semen finds its way into the urethra, or it may be because its ejection from the urethra has, in some way, been hindered. Four varieties of aspermatism are known: First, those arising from defects of the ejaculatory ducts, severe urethral stricture, or phimosis. Second, atonic spermatism, resulting from an inexcitability of the ejaculatory centre. In such cases there is a general neurasthenia, and the cells of the ejaculatory centre are weakened and incapable of work. Third, anæsthetic aspermatism, due to a loss of sensibility of the penis, so that for want of peripheric reflex an injection of semen is rendered impossible. The fourth cause of aspermatism is referred to a psychical origin; the hypothesis being that a lesion in the brain itself prevents the seminal emission.

In azoöspermism there is an injection of semen during coition, but it is unfruitful. This is due to an entire absence of spermatozoæ, or, if present, they are either dead or possess a vitality insufficient for fecundation. Among the causes of such a condition may be named the following: cachexia, bilateral anorchism, or absence of the testicle, carcinomatous degeneration of the testicles, tuberculosis, syphilis, traumatism, and severe atrophy of the testicles. An absence of spermatozoæ in the semen may also be due to a closure of both seminal ducts, this condition frequently follows after double gonorrhœal epididyemitis. Finally, severe cystitis may cause the death of the spermatozoæ immediately after their ejection.

The importance of the foregoing explanation is evident from the history of the following case, which was reported by Dr. E. Caspar, of Berlin, to the Berlin Medical Society, Jan. 13, and quoted in the *Wiener Med. Presse*, Feb. 2, 1890.

The patient was a man 32 years old who consulted Dr. Caspar in February, 1888, about the possible causes of his unfruitful marriage. The patient's wife had already been examined by a gynecologist, who had failed to find any cause for her childlessness. The patient gave a history of an attack of gonorrhœa, eight years before, which had resulted in cystitis, left epididymitis and urethral stricture. Otherwise the patient had always enjoyed good health. There was no history of syphilis. The man had been married for two years; he had practiced sexual intercourse with regularity, and coition was always completed by an emission of semen, but, as yet, his wife had not become pregnant. On examination it was found that the patient's genital organs were well developed and his urine normal; his heart and lungs were also found to be sound. All the lymphatic glands, however, were considerably enlarged, especially those of the inguinal region; the posterior wall of the pharynx was also observed to be inflamed, dry and shining, and a small irregular shaped ulcer was found on the left tonsil. A diagnosis of secondary syphilis was given. Dr. Caspar then examined the freshly emitted semen of the patient and was unable to discover any trace of spermatozoæ in it. The impotency was therefore due to azoöspermism. As the above mentioned causes for azoösperism were not applicable in this case, it was concluded that the functional disability of the generative glands was due to the presence of the specific disease. The subsequent result of an active anti-syphilitic treatment proved the correctness of this theory. The patient was put on a course of mercury and iodides.

Three months later the symptoms of syphilis were found to have almost entirely disappeared. The semen was again examined, and a few sluggishly moving spermatozoæ discovered. The azoöspermism had, therefore, changed to an "oligozoösperism." The administration of iodides was stopped, and when, a month later, the semen was again examined the number of spermatozoæ was found to have greatly increased and their activity was normal. The patient's wife now soon became pregnant. The child, when born, showed symptoms of hereditary syphilis.

It is evident, from the above case, that the functional power of the testicle may be impaired by the syphilitic poison, and azoösperism be the result. The same condition has been observed to be brought about by the habitual use of morphine, and, in the latter cases the spermatozoæ again appear in the semen, as soon as the drug is discontinued.

According to Lewin, spermatozoæ will be found to be absent from the semen of fifty per cent. of syphilitic, although otherwise healthy, men. Further researches in this

line may tend to make the therapeutics of impotency of greater efficacy than they have heretofore been.

Injections in Acute Gonorrhœa.

The *Lancet*, Feb. 15, 1890, states that Dr. L. Friedheim, assistant in the clinic of Professor Neisser at Breslau, who has made a large number of observations with several drugs, such as zinc, lead, bismuth, tannin, various preparations of mercury, permanganate of potash, creolin, etc., to test their astringent effect as well as their capacity for destroying gonococci, is equally dissatisfied with all the usual drugs. They all had either no permanent effect in destroying gonococci, or they irritated the mucous membrane to such an extent that their administration had to be stopped. Nitrate of silver alone acted quite satisfactorily. Dr. Friedheim reports on 318 cases treated with this drug, 237 of which proved its antibacterial effect satisfactorily. Unfavorable results were chiefly obtained with out-patients who lived in unsatisfactory circumstances. The following is the method pursued in Professor Neisser's clinic:—Every acute gonorrhœa is immediately treated with an injection of nitrate of silver of the strength of from 1 in 4,000 to 1 in 2,000. The discharge generally increases at first, becoming thicker and more purulent, but very soon decreases and becomes thinner, whiter and more epithelial. The gonococci decreases in a remarkably short time, and sometimes entirely disappear in a few days. The injections are first administered from four to six times a day, and are then reduced to one or two in the twenty-four hours, when at the same time a mild astringent like zinc or boric acid is injected; but even after entire cessation of the discharge, the nitrate of silver is still injected once a day for many weeks. The proper regimen must be followed for an equally long time. The injections are administered even when complications occur, especially epididymitis.

Need of Examining Boards.

The *Northwestern Lancet*, February 15, contains a number of answers made by graduates of medical schools to questions of the Minnesota Medical Examining Board. They confirm the demonstration of other Examining Boards that State examinations are needed to protect the community against the ignorance of men who seem to have no trouble in getting diplomas. Some of the answers follow:

"Symptoms of odema of the glottis are that the patient feels husky and has sore throat. I would amputate it if necessary. I would do the operation within three or four months, if it was a bad case."

"The dose of morphia sulph. for a child of five years, hypodermically, would be one-fourth grain, and if that doesn't give relief, I would give one-half grain."

"The dose of antipyrin for a child five years old is fifteen grains every three hours."

"The pulmonary artery is a branch from the great arto, fully supplying the lungs with arterial blood."

"The kidney is a muscular formation, in shape oblong, color quite dark, weight about one pound to one and a half, but may vary considerable."

"Parts severed in amputation at upper third of thigh—just avoiding the insertion of the glutei musels, passing through the Taylor's musel, periostum and femer."

"The sympathetic system is composed of all the filament of nerves that start from the spinal cord, and are distributed to all parts of the system, especially the brain. The cervical portion ramifies the encephalon in general. The dorsal portion ramifies the anus."

"Extra Uterine pregnancy may be a fungoid groth or tumor fibroid in its character or any extra groth in the uttrous would be called extra uterine pregnancy."

"Trismus neynatorum—a peculiar trouble of the eye, generally congenital, falling of the lids giving a unnatural look to the ordinary face of a child."

Q. "Give the distinctive histological features of carcinoma." A. "Carcinoma will show a general dropsical condition. Transparent condition of all the fluids except the urine which may show considerable deposit, scanty and hot. The patient's puls heavy, large, does not care to move."

"Tubercle of lung is supposed cause of consumption and the one generally advocated, and preventive treatment is any that will burn up them or destroy them I am a believer in alcohol but the why and its action I am unable to give."

Q. "How would you tell Sulph. Morphia from Sulph. Quinia?" A. "Sulph. Quinia is white flaky glistening. Has a metallic look. Tastes bitter. Never saw any pure Sulph. Morphia in my life. Have no use for either."

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CHARLES W. DULLES, M.D.,
EDITOR AND PUBLISHER.

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NEVER ROLL A MANUSCRIPT! Try to get an envelope or wrapper which will fit it.
When it is desired to call our attention to something in a newspaper, mark the passage boldly with a colored pencil, and write on the wrapper "Marked copy." Unless this is done, newspapers are not looked at.
The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

LEPROSY AND LEPERS.

Within the past few years we have frequently had occasion to refer in the REPORTER, both editorially and otherwise, to the subject of leprosy, and have especially discussed the question of its asserted contagiousness. In the issue for November 9, 1889, we maintained that this disease ought not to be spoken of as contagious in the ordinary acceptation of the term, although admitting that very possibly it may be communicable from one individual to another under certain circumstances. At that time we also spoke of the opinion held by some pathologists that leprosy is a very contagious disease. The dread of this disease has agitated the minds of many of the profession, both in this country and in England, and it has been spread among the people to an extent which we regard as to be much regretted. In the latter part of 1887 it was discovered that two lepers, a woman and her daughter, were in the city of Philadelphia, and notwithstanding the suggestions of medical men who knew something about leprosy, they were quickly dispatched to the Municipal Hospital, where they were isolated and treated with a caution more extreme than if they had had small-pox. After guarding the patients with exaggerated and absurd vigilance the authorities began to bestir themselves as how best to get rid of them. The Captain of the ship which had brought them to the United States was at last induced to take them away again; and the authorities so far abandoned their previous position in regard to the contagiousness of the disease as to send the patients to the port where the ship lay, in an ordinary passenger train, filled with other unsuspecting travelers, from whose scrutiny the patients were hidden by thick veils.

Very recently, the old fear has once more seized the health authorities of Philadelphia, and its people, and the daily papers have announced that the bacillus of leprosy is at large among us again. This time the unfortunate victim is a Chinese laundryman, who, being attacked with facial erysipelas and forsaken by his countrymen, was removed to the Philadelphia Hospital for treatment. Here the possibility that the man was a leper was recognized, and microscopical sections of the suspected lesions were examined day after day until the bacillus of leprosy was found. As soon as this was known, the man was hurried off with all speed to the Municipal Hospital for contagious diseases.

The interest of the REPORTER being aroused, we sent a representative—who had resided in China for several years, and had had opportunity to see a great deal of the disease—to the Municipal Hospital to investigate the case. Any one who has lived in China knows that in that country leprosy is very common, and that it is diagnosticated

without any search for the bacillus, since the disease, when at all advanced, may be recognized with great ease. On the streets in Chinese towns, lepers are more common than blind men are here. They come into the shops and grovel on the floor before the shoppers, beating tin cans to attract attention, and exhibiting their deformities. They are licensed paupers, and the shopkeepers have no right to order them out without giving them some alms. So a resident in China, especially if he is a frequent visitor to the Chinese towns and does not confine himself to the foreign settlements, soon finds himself familiar with lepers and leprosy. Through the courtesy of the officers of the Hospital our representative was at once shown the Philadelphia patient. After traversing long halls and going up several flights of stairs and through a number of doors, each of which was closed with scrupulous caution, probably to guard against the exit of the microbe, the ward in which the leper was confined was finally reached. The nurse in charge was summoned, and, to our representative's amusement, donned a huge pair of rubber gloves before going near the patient.

A slight examination was quite sufficient to show that the case was one of well-marked and fairly developed leprosy, of the type usually met with in China. The hands and feet of the man were principally affected. The left hand, according to the patient's own statement, had been contracted by the disease for a year. The feet had been affected for a "very long time." The Chinaman said he had been in the country for fifteen years; and if so, it is very probable that he came here a leper. Had it not been for the attack of facial erysipelas, and the loss of the use of his feet, he would be still at work in his laundry as he has been during all these years without doing anybody harm.

The facts of the present case confirm our opinions as to the impropriety and folly of speaking or acting as if leprosy was a contagious disease—in the usual acceptation of this term.

The unwarranted fear which has governed the authorities of Philadelphia, and a few other cities of the United States, upon the discovery of isolated cases of leprosy furnishes a sad commentary upon the state of knowledge in regard to leprosy which prevails in the ranks of the medical profession in this country. We have done what we could in the columns of the REPORTER to present to the profession what is known, as well as what is thought, by those who are most familiar with the disorder. We have not withheld the information that a number of distinguished observers in various countries speak of leprosy as a contagious disease; but we have repeatedly stated what a careful study of all the evidence seems to us to show plainly—that is, that if contagious at all, leprosy is so in such a slight degree that no one in this country need be much afraid of it, and that such extreme precautions as have been practiced at times by the health authorities of American cities are unjust to the subjects of the disease and injurious to the community.

REFORM IN MEDICAL EDUCATION AND ITS OPPONENTS.

Our wide-awake and plain-speaking contemporary, the *Medical Standard*, of Chicago, April, 1890, says: "A demagogic attempt is now being made to repeal a law requiring preliminary examination of persons preparing to enter upon the study of medicine by the regents of the New York State University. Dr. Austin Flint advocates the repeal of the law for the following reasons:

"The law affects the four medical colleges in New York and Brooklyn. Out of 2,318 students and 627 graduates in the entire State in 1889, these colleges had 1,921 students and 528 graduates, or about 80 per cent. of the whole number. Yet the bill requiring preliminary examinations was passed without their knowledge or consent. It

works especial injury to non-residents who come to New York to complete studies begun elsewhere. The non-resident students in the metropolitan colleges number 942, or about one-half of the whole; in the country colleges only 31. In the city colleges last year 293 non-resident students were also graduated; so that the continuance of the preliminary examination law is likely to destroy New York's prestige as a centre of medical education and drive students to Philadelphia. The New York students now spend annually $1,000,000 in the city, and support hundreds of families about Bellevue Hospital.

"Such an attempt to enlist local jealousies against a law, which every educated man cannot fail to see is beneficial to profession and public alike, is decidedly inconsistent with the ultra zeal Dr. A. Flint has avowed on behalf of medical orthodoxy. The New York county medical societies which had the law enacted, will doubtless prevent its repeal. In any event, this action of a leading light of the American Medical Association deserves the attention of that body on professional grounds."

In the same connection we note that the *Journal of the American Medical Association*, April 12, contains a very vigorous editorial on the same subject, which will hardly be enjoyed by those who prefer selfish and local interests to the advance of reforms On the other hand, those who are laboring for the elevation of the standard of medical education, and of the medical profession in the United States, and especially those who have shown a willingness to sacrifice something in this good cause, will rejoice to see that almost all over the country the supporters of the cause are multiplying, and its opposers are losing ground.

Every American city in which the standard of medical education has been, or is being raised would be glad to have the co-operation of the New York medical schools, and hope to have it before long, notwithstanding such unfortunate utterances as have recently come from Professor Flint. Meanwhile the reform is advancing, and it is only a question of time when it will prevail over all the opposition which has been made to it.

STRANGE PICTURE OF TYPHOID FEVER IN THE UNITED STATES.

At a meeting of the Medical Society of Berlin, held Feb. 26, and reported in the *Bulletin Médical*, March 12, 1890, Dr. Kronecker read a paper on the difference in the manifestations of typhoid fever in the United States and in Europe.

Having passed a year, he said, in the German Hospital of New York City, he had observed marked differences in the evolution of various infectious diseases, but especially in typhoid fever. He then gave the following remarkable account of his observations. In New York, the onset of typhoid, he said, is sudden and without any prodromic period. The patient complains of headache and lumbago; while vertigo, vomiting, and high fever are also present, and frequently diarrhœa occurs within the first twenty-four hours. In short, within a few days, the patient presents the typical picture of typhoid fever. The temperature is also much higher than in European typhoids; temperatures of 106.5° to 107.2° F. being not rare. Some patients, he said, recover after a period of illness, during which the temperature never sinks below 104°.

Defervescence, said Dr. Kronecker, seldom occurs until the twenty-eighth day. In some cases the type of fever is distinctly intermittent. The pulmonary complications observed are most serious; adynamia and coma are very frequent complications. The delirium is frequently of a violent character. This is explainable, he says, by the alcoholic habits of the population; and the frequent occurrence of collapse and the necessity for the frequent administration of excitants may also be attributed to the same cause. Baths, if at all employed, he says, must be used with great caution. The eruption of typhoid

spots is generally so abundant that the cases might be easily mistaken for exanthematous typhus fever. Intestinal hemorrhages are rare; but when they occur they are excessive.

It is not surprising that such a report should be deemed worthy of a full and prompt presentation by the correspondent of a French medical journal; but we can hardly understand how it could have been made by any careful observer. It is possible that, when Dr. Kronecker was at the German Hospital in New York, he found such typhoid fever there; but to present it as the common type of typhoid fever was a great mistake. We would be astonished to find it the type even in the German Hospital and it certainly is not the type throughout the country.

Dr. Kronecker's representation of the type of typhoid fever in the United States being so erroneous, it is, of course, not worth while to discuss his explanations. These, as well as the premises upon which they rest, are alike examples of the danger of loose observation and hasty generalization.

THE GRIPPE AS A PNEUMOGASTRIC NEUROSIS.

The universal attention which has been given to the recent epidemic serves to emphasize two things: First, the affinity of the poison, or cause of whatever sort, for the nervous system; second, the frequency of pulmonary, cardiac, gastric and intestinal complications. The symptoms which are most characteristic in the grippe are: A sudden and unaccountable appearance of severe headache, pain in the neck, spine, legs and feet; a tired and weary feeling throughout the whole body, accompanied by chilliness, fever, dizziness, staggering and inability to stand; an indifferent and listless state, as if the patient were passing through a siege of great nervous prostration; a laborious respiration associated with bronchitis, pneumonia, pulmonary œdema, etc., but out of all proportion to that which would be expected from the amount of lung lesion present; a frequently and irregularly acting heart; tachycardia; violent abdominal pain; vomiting and severe diarrhœa; sudden collapse; and death from respiratory and cardiac failure.

It is interesting to observe in this relation that M. Huchard (*Revue générale de Clinique et de Thérapeutique*, January 16, 1890) connects all these various phenomena with the theory that the poison of the influenza explodes on the central nervous system and peripheral nerves, but attacks the pneumogastric nerve most violently, and through its pulmonary branch produces pneumonia, hemoptoic pulmonary congestion, pulmonary œdema, bronchial paralysis, and a pertussis-like cough; through its cardiac branch, syncope, intermittence, bradycardia, tachycardia, anginiform disturbance and sudden death; and, through its gastric and intestinal branch, vomiting and various gastro-intestinal disorders.

This theory is also maintained by the eminent Dr. Graves, of Dublin, and by M. Vovart, of Bordeaux, and is in entire accord with our knowledge concerning the influence which vagus disturbances exercise over the pulmonary organs. Section or irritation of these nerves produces pulmonary hemorrhage, œdema and pneumonia in animals and in man. Quite recently this fact has also been brought conspicuously before the profession by the writings of Dr. Thomas J. Mays, of this city, who holds to the view that not only bronchitis, pulmonary œdema and pneumonia are the legitimate consequences of pneumogastric disease, but that pulmonary consumption owes its existence to the same source.

We believe that these investigations in regard to the nature of influenza have an important bearing on the future etiology and pathology of pulmonary and cardiac diseases; and in these days when the cause of every disease is sought in the vortex of bacillary infection, it is refreshing to find that

efforts are made to trace an anatomical relation in disease, which in itself serves as a key to, and points out the natural sequences of, morbid changes. This is the true aim of scientific investigation, and medicine will advance only when this principle is fully recognized and put into practice.

Book Reviews.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the Reporter.]

TRANSACTIONS OF THE MEDICAL ASSOCIATION OF THE STATE OF MISSOURI. Thirty-second Annual Meeting, Springfield, Mo., May 21. 8vo, pp. 218. St. Louis: Ev. E. Carreras, 1889.

The Transactions of the Missouri Medical Association deserve more than a passing notice. The character of the essays, of which there are twenty-two, is far above the average, and speaks well for the scientific standing of the profession in Missouri. We would fain review the merits of each essay; but lack of space forbids. The papers on the subjects, Antiseptic Medicine, by Dr. E. W. Schauffler, of Kansas City, and Comparative Tuberculosis, by Dr. Paul Paquin, of Columbia, are of great interest and well up to date; while Dr. A. H. Ohmann-Dumesnil's paper on Alopecia Areata, and Dr. Robert Barclay's paper on Precepts of Aural Practice, are of great practical value. The results reached by Dr. R. E. Young, of Nevada, in his paper on the Causes of Insanity, are based on an investigation of 21,190 cases of insanity. Ill-health, intemperance, the puerperal condition, uterine disease, epilepsy, heredity, menopause and masturbation were found to be the principal physical causes of insanity; while domestic troubles, emotional excitement, religious excitement, financial trouble and grief were found to be the chief moral causes. Out of 21,190 cases of insanity, 9,858 resulted from physical causes, and 4,611 from moral cause; while in 6,721 cases the origin of the disease could not be determined.

A paper which shows very careful study, and is of great scientific interest, is the one by Dr. L. Bremer, of St. Louis, on Traumatic Neurosis, or Railway Spine. The Association may truly be proud of its work, and the essayists complimented upon their admirable endeavors.

THE LAW OF POPULATION. By Annie Besant. Thirty-fourth thousand. 8vo, Paper cover, pp. 47. Valley Falls, Kansas: Fair Play Publishing Co., 1889. Price, 15 cents; with steel portrait of Mrs. Besant, 30 cents.

Mrs. Besant is known as a most outspoken advocate of the propriety of limiting the number of children in families. This she regards not only as a justifiable course in the marital relation, but as a duty when too many children may mean serious embarrassment in their development, training or support during their minority. In the little book before us—which has had a very large sale in Great Britain and in this country—she not only defends the view stated above but describes various methods of carrying it into practical effect.

The members of the medical profession are not all of one mind in regard to the rightness of the opinion held by Mrs. Besant; but any one of them who care to do her the justice of hearing the reasons why she holds it, will find them stated plainly and with perfect propriety in the little book under notice. They may not be convinced, but they will certainly, by reading the book, get a truer idea of her motives than they are likely to get if they limit their reading to the works of her critics.

THE YEAR BOOK OF TREATMENT FOR 1890. Small 8vo, pp. viii, 324. Philadelphia: Lea Brothers & Co., 1890. Price, $1.00.

This little book fully maintains the reputation of its predecessor for reliability and utility. There are many books on the market which attempt—or pretend to attempt—to give a summary of medical progress from year to year; but there is none which in so small a compass gives so good an idea of it as does this excellent little volume.

Literary Notes.

—Beginning with the issue for March, 1890, the *Annals of Gynæcology*, formerly published in Boston, and edited by Dr. E. W. Cushing, was enlarged and improved, and a Department of Pædiatry added, under the editorship of Dr. Louis Starr, of Philadelphia.

The journal is now printed by the University of Pennsylvania Press, Philadelphia, under the name of the *Annals of Gynæcology and Pædiatry*.

—The *Sunday-School Times*, March 29, 1890, contains an article by the Right Hon. W. E. Gladstone, which is the first of a series of articles on the Bible, from his pen. These papers are, by special arrangement with the writer, to appear on the same day in the *Sunday-School Times* in this country, and in *Good Words* in London.

—It is stated that the *Centralblatt fur Nervenheilkunde*, which was discontinued last year, will appear again in April in an enlarged form, under the provisional editorship of Dr. Kurella, of Allenberg, East Prussia.

—With one or two exceptions Spanish medical journals seem to have rather a frail hold on life. No fewer than three Spanish medical journals, the *Medicina Pratica*, the *Revista Cientifica*, and the *Archivos de Medicina y Cirugia de los Ninos*, have come to a premature end since the beginning of 1890, but Drs. Benito Alcina and J. Luis Höhr, of Cadiz, have just brought out the first number of a new Spanish periodical, entitled *La Revista Medico-Quirurgica*.

—*Scribner's Magazine* for April has for its frontispiece an admirable engraving from a painting, made for this periodical by the English artist, J. R. Weguelin, to illustrate an ode of Horace. Other Horatian odes will be illustrated by the same artist in succeeding numbers. This issue also contains the beginning of a notable series on "The Rights of the Citizen;" the last of the Electric Series on the Railway of to-day; an unconventional article of travel describing a journey across the Syrian Desert, besides other interesting articles.

NOTES AND COMMENTS.

Surgeons of the Confederate Army.

At the request of Professor Joseph Jones we publish the following call:

OFFICE OF THE SURGEON-GENERAL OF THE UNITED CONFEDERATE VETERANS,
156 Washington Avenue,
New Orleans, La., April 9, 1890.

TO THE SURVIVORS OF THE MEDICAL CORPS OF THE CONFEDERATE STATES ARMY.

Comrades: The surrender of the Army of Northern Virginia on this day twenty-five years ago, practically ended the struggle for the independence of the Southern States, and during this quarter of a century, death has thinned our ranks and our corps can now oppose but a broken line in the great struggle against human suffering, disease and death.

S. B. Moore, Surgeon-General of the Confederate Army, is dead; Surgeons L. Guild, A. J. Foard, J. H. Berrien, J. T. Darby, W. A. Carrington, F. A. Ramsey, Samuel Choppin, R. J. Breckenridge, E. N. Covey, E. S. Gilliard, E. A. Flewellen, A. N. Tally, Paul F. Eve, O. F. Manson, Louis D. Ford, Habersham James Bolton and a host of other medical officers of the Confederate States Army, all are dead.

The Association of the United Confederate Veterans, the objects of which are historical, social and benevolent, was formed in New Orleans, in 1888.

Our illustrious Commanding General, John B. Gordon, Governor of Georgia, has ordered the United Confederate Veterans to assemble in Chattanooga, Tenn., on July 2, 1890. It is earnestly hoped that every surviving member of the Medical Corps of the Confederate Army will meet us upon this important occasion and promote, by his presence and his counsels, the sacred interests of the Association of the United Confederate Veterans. It is of the greatest importance to the future historians, and also to the honor and welfare of the medical profession in the South, that careful records should be furnished the Surgeon-General of the United Confederate Veterans, embracing the following data:

1. Name, age, nativity, date of commission in the Confederate States Army, nature and length of service of each and every member of the Medical Corps of the Confederate States Army.

2. Obituary notices and records of all deceased members of the Medical Corps of the Confederate Army.

3. The titles and copies of all field and hospital reports of the Medical Corps of the Confederate Army.

4. Titles and copies of all published and unpublished reports, relating to Military Surgery, and diseases of Armies, Camps, Hospitals and Prisons.

The object proposed to be accomplished by the Surgeon-General of the United Confederate Veterans is the collection, classification, preservation and final publication of all the documents and facts bearing upon the history and labors of the Medical Corps of the Confederate States Army during the Civil War, 1861–1865. Everything which relates to this critical period of our national history which shall illustrate the patriotic and self-sacrificing and scientific labors of the Medical Corps of the Confederate States Army, and which shall vindicate the truth of history, should be industriously collated, filed and finally published. It is believed that invaluable documents are scattered over the whole land in the hands of the survivors of the Civil War of 1861–1865, which will form material for correct delineation of the Medical History of the Corps which played so important a part in the great historic drama. Death is daily thinning our ranks, whilst time is laying its heavy hand upon the heads of those whose hair is already whitening with the advance of years and the burden of care.

No delay, fellow-comrades, should be suffered in the collection and preservation of these precious documents. This task of collection of all documents, cases, facts relating to the Medical History of the Confederate Army invites the immediate attention and co-operation of his honored comrades and beloved compatriots throughout the South.

Respectfully, your obedient servant,
JOSEPH JONES, M. D.,
Surgeon-General
United Confederate Veterans.

Phenacetine in Whooping-Cough and Bronchitis.

If there is any remedy which will control a disease in a few days, which, if left to run its natural course, would last an average of ten weeks, it may be safely said that in one

disease at least science has accomplished something. Who has not felt, as he has seen the victim of whooping-cough struggling in its convulsive paroxysms, with its face purple, its eyes bloodshot, and its hands wildly thrown about in agony, the poverty of his art and his science for any relief it could bring to his patient. Scores of remedies have been introduced as specifics, and yet none have been more than partially successful. Possibly the new remedy, phenacetine, may share the fate of its predecessors, and yet we have seen such wonderful results from it in the catarrhal and spasmodic stages of whooping-cough, in the teasing and spasmodic coughs of bronchitis and laryngitis, we are led to hope that in this class of troubles it will yet rival quinine in its own specific field.

In a typical case of whooping-cough in a child eight months old, which had passed through its catarrhal stage and was well on in the second or convulsive stage, the paroxysms coming on every hour of a very violent character, the action of the drug was almost magical. Under the influence of grain and a half doses every three hours, the paroxysms in three or four days were reduced to half a dozen light ones during the twenty-four hours, and in a week had entirely disappeared. Another case was when the attack had not fairly entered the second stage, and yet the exposure of the child and the peculiarity of the symptoms left no doubt as to the character of the disease. In three days the cough had very nearly disappeared under the influence of two-grain doses of the drug every four hours, and in a week's time he was able to return to school. In the schoolmate from whom the disease was contracted, the disease was two months in running its course. In both of these cases the vomiting speedily ceased and the appetite returned. Many other cases occur to us as we write, but the ones quoted above were typical, and will suffice to illustrate the prompt action of the remedy. A lady of middle age was attacked with a sharp pharyngitis, the inflammation, as it was relieved in the pharynx, extending down and involving the larynx and upper bronchial tubes. The expectoration was bloody and purulent, and the cough frequent and painful. In addition to the usual medication five-grain doses of phenacetine was given at first every three hours, and as the cough subsided, every four or six hours. The effect was immediate ; with the first dose the whole nervous system was quieted, the cough became less frequent, the temperature diminished, and in a few hours the patient fell into a quiet sleep. The improvement was rapid. There is no doubt the drug produces a very marked effect in relieving the irritability of the nervous system, and acting especially upon the vaso-moter nerves, controls to a certain extent the circulation without any dangerously depressing action upon the heart. As an intercurrent remedy we have reason to believe that in many cases it will supersede opium and its alkaloids and the class of hypnotics of which chloral is the type, because it not only does not prevent, but aids by its quieting power, the specific action of other drugs. We have been particularly pleased with the action of phenacetine in the epidemic of grippe through which we have just passed. In connection with other indicated remedies it has been, in our hands, of very great service.—*N. Y. Medical Times*, April, 1890.

Case of Alleged Hydrophobia.

Dr. William Carson reported at a meeting of the Cincinnati Medical Society, December 3, 1889, as reported in the Cincinnati *Lancet and Clinic*, March 22, 1890, a case of so-called hydrophobia. The diagnosis was suggested by the language of the patient. The history is not complete, for there was no *post-mortem* examination. The subject was an American, eighteen years old, single, a hard drinker. He left home three weeks before his death, and had since been exposed to the weather ; had had poor food, irregularly partaken of. He had a sore throat for about a week. About one month before his death he was bitten by a dog. There was no pain in his throat when he was admitted to the hospital. His pulse was 110, his temperature 100.6.° The condition of the urine not known. He was poorly developed ; his pupils reacted to the light readily. The left tonsil was inflamed. Dr. Carson ordered salicylate of soda. Delirium came on that afternoon. There were illusions and delusions. He was given stimulants. He said he could not swallow. The urine was then bloody and small in amount. He died that day. There was no special excitement at the examination. The exposure, his want of food, etc., were sufficient to account for his condition. Dr. Carson had before reported cases of nephritis following

tonsillitis. The habit of hard drinking followed for years might develop a nephritis. There was no such dysphagia as could not be explained by a local throat trouble, and no more maniacal excitement than could have been produced by acute alcoholism and nephritis.

Dr. Wm. L. Mussey said that this case reminded him of a case which came to the hospital during his residence there. The patient was a boy ten years of age, and was brought by his father. According to two physicians and the newspapers he had undoubted hydrophobia. The boy was an only child, and had been spoiled by his father and grandmother. It was about the time of the starting of Pasteur's laboratory. The boy was bitten by a cat. He wanted to go to the theatre and was forbidden to do so. The hydrophobia developed that night. When he was brought to the hospital he mewed, scratched, and bit in imitation of a cat. He continued this for a few hours, when the electric brush was applied. There was no further repetition of the symptoms of hydrophobia for several days. The attack then came on again, the electric brush was again applied vigorously, and the patient was shortly discharged cured.

Dr. J. A. Thompson said that in this connection the observation of a dog fancier would be of interest. He was of the opinion that the majority of cases of hydrophobic convulsions in the dog were due to uremic convulsions.

Powdered Milk.

The *American Analyst*, March 6, 1890, quotes from the *American Dairyman* the following in regard to a proposed substitute for milk.

The idea of reducing cows' milk to a dry powder, and shipping it in this condition all over the world seems to have originated with Dr. Krueger, a Swiss savant, and under his management a company was organized to make milk powder in Switzerland. It is claimed that milk in this form is much better than canned or condensed milk; for one reason, it has no sugar in it. It is well known that condensed milk cannot be used in many departments of cooking on account of the sugar, and this also makes it objectionable for use with very young children, not that the sugar itself is injurious to the babies, for it is always put into their milk, we believe, but it is better that this sugar be put in fresh at the time of preparing milk for the child. How far this powdered milk will answer these objections remains to be seen. One thing is certain, the powder will be much better for transportation and more handy to have in the house than either plain or condensed milk, provided it is a success. It looks somewhat dubious as a complete substitute for plain milk, not only on account of necessary expenses, but we do not find any kind of food capable of being thoroughly dried and afterwards made over with water so as to closely resemble the original article, and we never expect to see it done with cows' milk. Nature has a way of mingling these things that thus far man has not been able to closely imitate.

Dislocation of both Shoulders.

Mr. Alex. Milne, of Dewsbury, England, in the *Lancet*, Feb. 22, 1890, reports a case of dislocation of both shoulders. The patient, a man aged sixty, employed in the construction of bridges, was brought to the infirmary suffering from subcoracoid dislocation of both shoulders. The injury had been produced by his falling down a distance of about ten feet between the scaffolding and the bridge in course of construction. Both his arms, stretched above his head, were suddenly caught in his descent, and the jerk had been sufficient to dislocate both shoulders. According to his statement, the right shoulder had been dislocated fourteen years previously, and the left one six years before, and in both cases the accident had happened in precisely the same way as in the last instance.

Experimental Tetanus.

At the meeting of the Medical Society of Berlin, held Feb. 5, 1890, Dr. Weyl showed a dog which, eight days before, had been inoculated with the bacillus of tetanus from a culture in bouillon. The first tetanic symptoms exhibited by the animal were noted on the fourth day after the inoculation and consisted in opisthotonos. At the same time, all the muscles of the dog became tetanic and the animal was, to all appearances, a rigid cadaver.

It has been maintained that dogs enjoy an immunity from tetanus, but Weyl's experiments have proved the contrary.—*Bulletin Médical*, Feb. 12, 1890.

Treatment of Erysipelas.

Dr. Calvelli recommends the following formulæ for the treatment of erysipelas, in the *Bulletin Médical*, Feb. 16, 1890:

I.

℞ Acidi picrici . . . . . ♏ xxv.
Aquæ dest. . . . . ʃ℥ viijss.

Sig. To be painted on the affected parts five to ten times daily.

II.

℞ Mucilag. acaciæ . . . . . ʃ℥ij
Acidi carbolici . . . . . ♏xxv–xl.

Sig. To be painted on the affected parts twice daily and allowed to dry.

Michigan State Medical Society.

The twenty-fifth annual meeting of the Michigan State Medical Society will be held in Grand Rapids, Mich., June 19 and 20, 1890. This is one of the most active and enterprising medical societies in the United States, and one whose proceedings are always of interest and value.

Three years ago the Society, appreciating the large number of valuable papers presented at the annual meetings, wisely divided its scientific work into three working sections, namely: Practice of Medicine; Surgery and Ophthalmology; Obstetrics and Gynecology; the afternoon of each day being wholly devoted to sectional work. This plan has worked very successfully, as the last volume of Transactions shows.

The President's annual address this year will be by Dr. Geo. E. Frothingham, Detroit, on "The Need of Extensive Organization and Pursuit of a Fixed Policy as a Means of Promoting our Professional Interests."

The address on Practice of Medicine will be by Dr. W. F. Breakey, Ann Arbor, on "The Mutual Relations and Responsibilities of the Physician and the People in the Promotion of Medical Science."

The address on Surgery and Ophthalmology will be by Dr. F. J. Groner, Big Rapids, on "The Causes and the Remedies for Suits of Malpractice."

The address on Obstetrics and Gynecology will be by Dr. J. N. Martin, Ann Arbor, on "The Relations between Constitutional Conditions and Diseases of the Female Genital Organs."

In order to accomplish its purpose more successfully, the Society would urge that its members join local or County Medical Societies already formed, or use their influence towards organizing such societies, so that nuclei of medical societies may be started, our State being at present behind our sister States in the number of its County Medical Societies.

The Society extends to all graduates in regular medicine, who are residents and practitioners in Michigan, a cordial invitation to attend its sessions, urging upon them the importance of joining the State Medical Society this year.

The Secretaries of the different sections earnestly desire that the members who intend to present papers at the next meeting, will inform them of the fact and send to them their titles and the points to be discussed not later than June 1.

Inquiries in regard to the meeting will be answered by the Secretary, Dr. George Duffield, Detroit, Mich.

Western Pennsylvania Medical College.

The Fourth Annual Commencement Exercises of the Western Pennsylvania Medical College were held in Pittsburgh, Pa., March 27. The degree of M. D. was conferred on twenty-nine graduates, being about twenty-five per cent. of the class in attendance during the past term.

In the evening of the same day, the Alumni Association of the College, now numbering one hundred and twenty members, was entertained at a banquet by the Faculty.

Seaside Home for Women.

The managers of the Seaside House for Invalid Women invite attention to the advantages offered by the Mercer Memorial House, Atlantic City, to sick or over-worked women, who need, and yet can ill-afford, a sojourn at the seashore. The charge for a private room, with nursing, medicines, and medical attendance, is four dollars per week —about one-half its actual cost. Circulars can be obtained by writing to the institution. No one is admitted without previous application.

NEWS.

—Dr. W. R. Hoch has removed to 1502 Walnut Street, Philadelphia.

—There was recently a case of trichinosis in the Ward's Island Hospital, New York. The patient was an Italian.

—The corner-stone of the George L. Harrison Memorial House for Incurables of the Episcopal Hospital, was laid Friday, April 11.

—The ninth annual commencement of the Medico-Chirurgical College was held April 10. Twenty-five graduates received the degree of Doctor of Medicine.

—General Hamilton, of the Marine Hospital service, has been directed by Secretary Windom to make the necessary preparations for attending to the wants of sick emigrants who are at the port of New York after April 18, who may be entitled to Government care.

—Dr. Henry L. Schell, for so many years connected with the Wills Eye Hospital, Philadelphia, died March 15, in San Diego, Cal. His body was embalmed and brought to Philadelphia, where it was incinerated at the Germantown Crematory, in accordance with the desire of the deceased.

—A number of the professors in the St. Louis College of Physicians and Surgeons have resigned. The reason given for this action is that they do not consider it proper to hold their positions practically subject to the will of Dr. Louis Bauer, who is Professor of Surgery, Dean of the College and a member of the Board of Trustees.

—Dr. Edward Chester, who is now spending a few months in this city, after thirty years' work as a medical missionary in Southern India, says that there is an excellent opening for a few good American dentists in Madras. Madras has a population of 300,000 and has no good dentist, so that many persons are compelled to go to Bombay, nearly 1,000 miles away, to have their teeth looked after.

—Spotted fever is reported to have broken out in Union County, Kentucky. A number of children have been attacked, and in each case fatally. The disease is identical in all its symptoms with that which last summer carried off 250 victims in Webster, an adjoining county. In that epidemic neither sex nor age were spared. Only children have so far been attacked this year. The disease is said to run its course inside of 36 hours. Its approach is heralded by intense pain at the base of the brain. A burning fever speedily follows. The tongue becomes swollen and hard, unconsciousness ensues and death follows. After death the body becomes spotted with yellow blotches, the limbs swell and the whole body turns black. The schools have been closed and the people are leaving.

OBITUARY.

DR. HENRY HOLLINGSWORTH SMITH.

Dr. Henry Hollingsworth Smith, the eminent and well-known surgeon, died at his residence in Philadelphia, April 10, after an illness of ten days, in the seventy-fifth year of his life. Dr. Smith was born in Philadelphia, December 10, 1815. He was graduated from the College Department of the University of Pennsylvania in 1834, and was graduated from the Medical Department of the University in 1837. He was Resident Surgeon of the Pennsylvania Hospital for two years, and then spent some time in various European hospitals. He became Surgeon to St. Joseph's Hospital in 1849, Surgeon in the Episcopal Hospital soon afterwards, and one of the surgical staff of Blockley Hospital in 1854. In 1855 he was appointed Professor of Surgery in the Medical Department of the University of Pennsylvania, and resigned to become Professor Emeritus in 1871.

At the beginning of the civil war he was appointed to organize the Hospital Department of Pennsylvania, and at the same time made Surgeon-General of Pennsylvania. In this capacity he contributed much to the efficiency of the medical service of the Pennsylvania Reserves and other State regiments. After thoroughly organizing the department of which he was in charge, he resigned his commission in 1862, and has since been actively engaged in the practice of his profession. He won the warmest thanks of uncounted relatives by inaugurating the system of embalming the dead on the battle-ground. No act in the medical and hospital department of the army won more praise than was at that time and has since been awarded this.

Dr. Smith was widely known as a medical author and teacher, and he took an active interest in the questions of medical politics which have engaged the attention of the profession in this city and throughout the country during the past few years.

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Clinical Lectures.

CHRONIC EMPHYSEMA. — EMPHYSEMA WITH ACUTE BRONCHITIS.[1]

BY JAMES TYSON, M. D.,

PROFESSOR OF CLINICAL MEDICINE, UNIVERSITY OF PENNSYLVANIA.

Chronic Emphysema.

Gentlemen: This patient is sixty-six years old, and presents a negative family history. His employment has, however, some bearing on his disease. He is a machinist, and forced to work a great part of his time exposed to the irritation of minute particles of iron pervading the air he breathes. He has lived, too, in a raw and cold climate, but he has always had good food and has been well clothed. He has had gonorrhœa and syphilis, and also malarial and typhoid fever. His present illness dates twenty years back. For a long time he had a cough which was worse in winter, and this is still the case; he loses wind upon slight exertion, and is subject to attacks of dyspnœa which nearly always occur at night. It is plain that this history suggests physical examination of the patient's chest. Inspection shows a change in the shape of his thorax. You will mark that it goes down abruptly on each side, and has not the curves that we naturally find in health. It is cylindrical in shape; and this term expresses the condition better than the customary word barrel-shaped which, however, is the expression generally used to describe such a chest. You will also mark a deep depression over the sternum, and the same state of affairs over both clavicles. His rate of breathing is from twenty-four to thirty as contrasted with the normal, eighteen to twenty, respirations per minute.

By percussion we find in health that the liver dulness generally begins in the mam-

[1] Delivered at the Philadelphia Hospital.

mary line at the sixth interspace. Here, as we percuss downwards, we find that in nearly the whole area in which we ought to meet with hepatic dulness there is a resonance. This resonance extends to the eighth and even to the ninth rib before absolute dulness is arrived at. Below this the sound is dulled for the distance of a couple of fingers' breadth, and then we come to the tympany of the abdominal region. We see then that the liver is displaced downwards. Now on the left side we find this extreme resonance extending, not merely to the fourth, but to the seventh rib. The apex beat of the heart is in its normal position, but very weak and difficult to locate. On both sides of the chest the interspaces are abnormally deep. The reason for this is that, as the chest wall expands, the lungs do not follow them, so that there is in the pleural cavity a vacuum which causes these intercostal spaces to recede. The result then of our examination by percussion is that we find over both lungs a hyper-resonance which, moreover, obscures or takes the place of the dulness in the regions of the heart and liver. On the left side the dulness of the spleen is entirely concealed by the hyper-resonant lung. Behind, the chest is shaped like a cylinder and not so much like a double truncated cone, as in health. Over the regions of both scapulæ the resonance is, as usual, somewhat lessened. Below them we again find this hyper-resonance extending quite down to the bottom of the chest.

On auscultation I hear a prolonged vesicular murmur, not louder but rather lower than normal. The inspiration is shortened and less loud than in health, but the expiration is prolonged, and this is more noticeable anteriorly than posteriorly. Expiration on the right side is very markedly prolonged; and on the left side, although this condition is not so striking, it is still sufficient to be noticed at once. The heart sounds are normal, but distant and difficult to hear.

The history of the case, extending over such a long period; the fact that he did not begin to lose flesh to any great degree until the last six or seven years, together with our finding everywhere hyper-resonance instead of dulness—all point to this being a case not of consumption, as one might think from hastily looking at the man's appearance, but of chronic emphysema. Now, in this disease, we have a permanent dilatation of the air vesicles, associated with the loss of their elasticity. This condition is often compared to that of an India rubber balloon that has been overstretched until it has lost the power of contracting to its former size. Moreover, the partitions between the different air vesicles become destroyed, so that three or four of them unite together, especially at the edges of the lungs and then the organ or, at least, the part of it most affected, resembles somewhat the frog's lung.

The emphysema may be either partial or general. If it extended over the whole of both lungs, of course, the patient could not live. But I have seen *post-mortem* lungs so thoroughly emphysematous that it was surprising that their owners lived as long as they did. When these vesicles become destroyed and several merge into one, the lung becomes hyper-resonant; and as the minute ramifications of the blood-vessels about these destroyed vesicles become, in course of time, themselves destroyed, the effort of the heart to drive the blood through the diminished vascular space becomes greater and greater until hypertrophy of the right ventricle results.

Emphysema is not a primary disease, but is a secondary result of chronic bronchitis, as is well shown in this case. It is brought about by either inspiratory or expiratory strain. When a person coughs hard he inspires deeply and much air is introducded into the lungs, and the vesicles are dilated by its entrance. Especially when it is turned aside from its usual path by obstructed areas; but expiration has probably more to do with causing emphysema than inspiration; when mucus plugs up certain of the air tubes, and the vesicles to which they lead cannot empty themselves, the latter are compressed by the chest walls and yield in the directions of least resistance and become over-distended, and lose their power to contract. These situations are the apices and edges of the lungs; and these become emphysematous sooner than the central parts. The results of this disease are, on the whole, well explained by physical laws.

As to *treatment*, it is impossible to restore the lost partition between the minute air vesicles or to reduce them to their natural size. Our great aim should be to get the afflicted person to accommodate his manner of living to his diminished air space. The emphysema is not only dependent upon the accompanying bronchitis, but is greatly aggravated by it, and as this latter affection be-

comes better or worse so is the former trouble lessened or increased. Therefore, we must treat the accompanying bronchitis. When the disease is chronic and expectoration profuse, the stimulant expectorants are indicated, of which there are none better than the carbonate of ammonium. Senega is included in the same category. These should be exhibited in doses of from five to ten drops of the latter and five to ten grains of the former. Counter irritation in the form either of tincture of iodine or a weak mustard plaster—say one part of mustard to four parts of flour or Indian meal—so that it may remain on for a good while, is also of value. As an alterative during the chronic condition, we may resort to the use of the iodide of potassium, while the tincture of belladonna is useful in relaxing spasm; for during the acute exacerbations or the attacks of asthma the symptom of dyspnœa is so serious and painful, that we have to resort at once to some special treatment to relieve it. Now the cause of this shortness of breath is an imperfect aëration of the blood, because the air in the lungs is not kept sufficiently renewed. What is wanted is a more satisfactory interchange between the external atmosphere and the air in the lungs and whatever will contribute to this end is beneficial. Therefore it is well for the patient to accustom himself to the habit of alternately compressing and relaxing his chest walls with his hands, or, what is better, have this alternate compression and relaxation practiced upon himself by another person, so that his lungs may become thereby more perfectly emptied of their worn-out air. This same object is accomplished by breathing into rarefied air or by breathing condensed air. In the former case the air-chamber into which the patient breathes, being under less pressure than the air in his lungs, there is a comparative vacuum outside, so that by this means the air in the remote parts of the lung is drawn out and then, of course, its place in the lung filled out by fresh air from the outside. The same effect is gained, though in a different way, by one's breathing into condensed air. Here, the air being under greater pressure than that in the patient's lung, forces itself into the different parts of that viscus, into the remote air cells and thus brings about the interchange between the internal and external air. This plan is not as good as the breathing into rarefied air. For these acute attacks of asthma, which so frequently accompany the emphysema, the best medicinal treatment is either by nitrate of amyl, chloroform, belladona or the iodide of potassium. Pearls of the nitrite of amyl may be carried by the patient about with him and one of them may be broken and its contents inhaled when needed. If the chloroform is inhaled, it would be necessary for it to be administered by another person. The tincture of belladonna may be given in small doses, often repeated. Iodide of potassium would have to be administered for a long time to do any good. A very useful remedy is strychnine as an expiratory stimulant. It should be given in full doses, certainly as much as $\frac{1}{20}$ grain and even $\frac{1}{16}$, reached by gradual increase from smaller doses.

Emphysema with Acute Bronchitis.

This next patient is much younger than the one who preceded him. His occupation has been that of a laborer. Here, too, the family history is negative. His health was good in childhood. He, too, worked in dust; has been pretty freely addicted to the use of alcohol and has had specific disease. He had an attack of pneumonia in 1884 and this probably has some connection with his present complaint. He has had a cough, worse at times, and attacks of dyspnœa for the last four years. He also had bronchitis, which was worse in the fall and winter seasons and, moreover, attacks of asthma which nearly always occurred at night; so that he has, on the whole, a good many symptoms similar to the other case.

Upon examining him by inspection we find that he, too, presents the condition characteristic of constant expiratory strain. Here, too, we see the cylindrical or barrel-shaped chest, which is straight up and down, with deep depressions between the ribs and about the clavicle where the muscles are attached. He presents the superior thoracic type of breathing—that of woman. Percussion on the right side shows resonance down below the seventh rib, because the liver is displaced downwards by the lung. The heart's dulness is obscured by the overlying lung and that of the spleen is hardly perceptible. By auscultation we find that the inspiratory murmur here is louder than in the former case. The characteristic peculiarity of emphysema, that the duration of expiration is increased while that of inspiration is decreased, is here very marked. We hear also "cooing" râles, which are

symptoms of bronchitis. This is what we might expect, as the man did not come into the hospital until yesterday. In addition to the cylindrical-shaped chest, upon examining this man behind, we find that he has the drawing together of the scapulæ and that consequent deepening of the vertebral gutter. These phenomena are also common in emphysema, from the overwork of the muscles in their efforts to make the chest walls accomplish or supplement the imperfectly performed functions of the lungs. Moreover, this is a local disease and in this case it is more marked on the left than on the right side, that is, the resonance and other signs of emphysema on the left are more marked than on the other side.

Under the head of treatment may be mentioned in this case the comfort and rest of a hospital. These patients who are poor nearly always improve as soon as they come here, independent of the medicines they receive; because they get good food, rest and protection from the weather. As this man was only admitted yesterday, the symptoms of his disease are rather those of acute bronchitis. We do not hear the moist bubbling, as in the previous case, but sonorous and sybilant râles. Therefore, we do not need the stimulant, but relaxing expectorants, such as tartar emetic or ipecac. He might now take a prescription like one of the following:

℞ Syrup of Ipecac . . . . . f℥ss.
Sweet Spirits of Nitre . . . . . f℥vj.
Simple Syrup, or Sprup of Wild Cherry . f℥ss.
Neutral Mixture, enough to make . . . f℥vi.
Sig. Take one tablespoonful every three hours.

Later we may add to this prescription two drachms of the muriate of ammonium or still later, carbonate of ammonium, omitting the ipecac altogether. Locally he should have upon his chest a large, warm mustard poultice, composed of one part mustard and four parts corn meal, which may be left on for some time.

—The special board of engineers appointed by the Secretary of War to examine and report upon the most available point on the Gulf coast west of the Mississippi for a deep-water harbor have selected Galveston. Their report is now before Congress. The expense of improving Galveston harbor so as to fulfil the requirements is estimated at $6,200,000.

EMPHYSEMA.—EMPHYSEMA WITH BRIGHT'S DISEASE. — EMPHYSEMA COMPLICATED WITH PHTHISIS.

BY J. M. ANDERS, M. D.,
PHILADELPHIA.

Emphysema.

Gentlemen: The history of the first man whom I show you to-day is as follows: He is fifty-nine years old; his family history reveals that his father died of phthisis at an old age, his mother living to an old age also and having had emphysema and asthma. When a boy he had typhoid fever, and at twenty he had what was thought to be brain fever. After that he was well until twenty years ago when he had an attack of articular rheumatism. Four years ago he began to suffer from asthmatic attacks, terminating with profuse expectoration. From these symptoms one would expect the presence of emphysema and it is with this idea foremost in my mind that I begin to examine his chest.

Inspection shows that the thoracic portion of the spinal column is more curved than normal. There is bulging behind and in front—a prominence giving to his chest the characteristic barrel-shape. His inspiration is quick and short; his expiration, prolonged and labored. When he breathes, the whole chest is moved slightly upward and downward as one solid casing. The normal elasticity of the lungs is not sufficient, hence they do not empty themselves at each breath. Thus there is a great amount of the residual air left behind them at each respiration. The intercostal spaces protrude behind. The heart is overlapped by the lungs. The apex beat is much displaced towards the right side and also in a downward direction. For these reasons the area of cardiac dulness is very small.

Percussion reveals hyper-resonance over his entire chest. The percussion note in emphysema is never purely tympanitic, but partly of a vesicular quality. The lung has pushed down the diaphragm and the breathing is, to a great extent, abdominal. Some physicians go so far as to divide all cases into those characterized by abdominal

[1] Delivered at the Philadelphia Hospital.

respiration and those in which the respiratory movements are more marked above.

Auscultation shows a prolonged wheezing expiration, and when you have associated the three signs: weakened vesicular murmur, prolonged expiration, and hyper-resonance on percussion, you may be certain of the existence of emphysema. Pneumothorax gives rise to a hyper-resonance at first; but here auscultation reveals exaggerated respiratory sounds. In pleurisy there is flatness on percussion when effusion takes place. In phthisis we get dulness on percussion, generally in one of the upper lobes, together with harsh vesicular murmur, and more or less bronchial breathing. In capillary bronchitis you have greatly hurried breathing, a rise of temperature, a bad cough, and the expectoration of considerable sputum. Pleurisy generally affects both lungs and in this respect resembles emphysema, which also usually affects both organs in the course of time.

During the progress of emphysema the patient is often comparatively comfortable in summer, but in winter the cough and asthma set in again. The associated bronchitis often bears a causal relation to this disease, especially when the emphysema is local. When the bronchitis comes late in the disease it is due to a passive congestion. In this man's case the bronchitis preceded, and was the cause of the emphysema. Therefore, it is worse in winter.

If emphysema is due to some sudden great effort, or is brought on in children by the whooping-cough, it is often curable. Jenner thinks that this disease is due to a fibroid degeneration of lung tissue, while Williams attributes its causation to fatty degeneration. The indications for treatment are to arrest the degeneration by iron and arsenic and to restore the power of the over-distended lung. This latter object is best accomplished by breathing condensed air, at the same time expiring into rarefied air. Then you should always treat the associated bronchitis. The asthma, too, may require special treatment. Each hospital has its formula for cigarettes, which give temporary relief.

Again, the tincture of lobelia is given in twenty-drop doses every half hour until the symptoms are relieved. In order to break up the tendency to recurring attacks of asthma, the iodide of potassium in ten-grain doses, three times a day, is recommended.

Emphysema with Bright's Disease.

This man is seventy years old, and he comes from a long-lived family. His father died, at the age of eighty-four, of articular rheumatism and his mother of old age. He had eleven brothers and two sisters and his own family number ten children, all of whom, except one, are still living. He had rheumatism last year, and in May, 1889, he was seized with dyspnœa and fever, together with a fearful headache. He went to the Episcopal Hospital, where he was treated for bronchitis and asthma. He left there at the end of three weeks slightly improved. He has had one attack of asthma while here and for this he received a hypodermic injection of morphine.

Examination by inspection shows that the chest is enlarged, but not barrel-shaped. The apex beat of the heart is seen in the epigastrium. Percussion, too, confirms the testimony of inspection that the heart is displaced downward, and that the area of its dulness is decreased. There is increased resonance of the lungs. Auscultation reveals a weakened vesicular murmur and the expiration is prolonged. The main physical signs are: weak vesicular murmur, prolonged expiration and semi-tympanitic resonance; and they point to emphysema. When he was admitted he was treated for chronic bronchitis. The emphysematous condition persisted and the attacks of asthma at night grew worse. About three weeks ago his urine showed some albumin and some epithelial and granular casts. Some authorities say that all cases of emphysema, that terminate fatally, exhibit albumin and casts in the urine. While I am prepared to admit that it does occur at times, I think it is going too far to claim that it occurs in all, or anything like all, fatal cases. When Bright's disease does occur it is in the majority of instances the large, white kidney, whilst it sometimes takes the form of chronic congestion. Many of these cases of kidney disease seem to develop suddenly. In nephritic complications you will have the worst forms of nocturnal asthma. As this man's urine indicates Bright's disease and he is already anemic, he will be given one tablespoonful of Basham's mixture three times a day.

Emphysema complicated with Phthisis.

This old man's occupation is that of a laborer. His family history is good. At

fifteen he had pleurisy; twelve years ago he had typhoid-pneumonia, and later, cough, profuse expectoration and night-sweats. He recovered from this, but later began to cough again. He was admitted here a good while ago and showed then serious lesion at the apex of the left lung. Here the emphysema is only partial or compensatory. There are some who say that you cannot have emphysema and phthisis in the same subject, that in emphysema you have an anemic condition of the lungs, while the great requisite in phthisis is hyperemia. But in this case we had, first, a tuberculous process, and later a compensatory emphysema. The antero-posterior diameter of the right chest is enlarged, and we have a distinct impulse of the heart's beat beyond the nipple line. In emphysema the right side of the heart is frequently dilated from general capillary stenosis of the lungs.

On ausculting the right side of the chest I get a weak vesicular murmur and prolonged expiration; and on percussing, hyper-resonance. On the left side I hear subcrepitant râles everywhere, distant bronchial breathing and the percussion resonance is diminished. Therefore, the whole of the right lung has undergone hypertrophic emphysema while the left lung has been becoming tuberculous. In cases like this the prognosis is grave and the treatment should be, to a great extent, directed to the general condition.

COMMUNICATIONS.

TROPHO-NEUROSIS AS A FACTOR IN THE PHENOMENA OF SYPHILIS.[1]

BY G. FRANK LYDSTON, M. D.,
CHICAGO, ILL.

[CONCLUDED.]

Even in congenital syphilis we can see evidences of tropho-neurotic disturbance. The peculiar affinity of the syphilitic process for the epiphyso-diaphysial junction of the long bones is strikingly suggestive. It is here that the processes of growth and nutrition are most active, and tissue building most rapid. It is, consequently, at this point that disturbance of the trophic function of the sympathetic which presides over the physiological processes of nutrition and growth would be most likely to be manifested by pathological changes. A perversion of the function of the sympathetic would result in imperfect differentiation of the cells of the part; and, as the rapidity of proliferation of cells is in inverse proportion to their degree of differentiation, a heaping up of the young material is to be expected. Associated with this imperfect differentiation of cells, we have a tendency to degeneration; for it may be formulated that the tendency to degeneration is also in inverse ratio to the degree of differentiation. This imperfect differentiation, with a consequent tendency to degeneration of young germinal material, is the characteristic feature of all the lesions of syphilis, no matter at what stage of the disease they may develop.

The physiological effects of the remedies upon which we depend for the cure of syphilis are evidences of the neurotic character of syphilitic phenomena. It is shown that mercury and iodide of potassium, although very efficacious in syphilis, are in no sense directly curative, their beneficial effects being dependent upon their power of inducing fatty degeneration and elimination of the products of the syphilitic process rather than upon any special controlling or antidotal effect upon the poison *per se*, whether this poison be a virus, germ or cell. In reviewing the opinions of our best syphilographers regarding the treatment and prognosis of syphilis, one is impressed with the idea that syphilis is a disease which runs a natural course in spite of treatment, the physician being incapable of doing more with his remedies than to remove the effects of the disease as fast as they appear, thus preventing as far as possible permanent damage to the affected tissues. As far as aborting the natural course of the disease is concerned, he is absolutely helpless; and apparently his success in the treatment of the disease is inversely to the vigor of his attempts to antidote or stamp it out.

If the neurotic theory of the essential condition in syphilis be correct, in our efforts to discover a specific remedy for syphilis we have been necessarily led away from those lines of research which would lead to a correction of the principal element in the production of the syphilitic phenomena. The severity of the results of syphilis would appear to depend (1) upon the individual susceptibility of the nervous system of the patient; (2) upon his constitutional

[1] Read at the meeting of the Southern Surgical and Gynecological Association.

condition, and, incidentally, on the resisting power of his tissues; (3) upon the action of remedies, this being by no means the most important consideration.

The involvement of the fauces and pharynx characteristic of secondary syphilis, has been explained upon the ground of lymphatic engorgement, the primary cause of which is the abundance and superficial character of the lymphatic capillaries of the affected parts. It is a noteworthy fact, however, that there is but little swelling, pain and tenderness accompanying the syphilitic sore throat, provided ulcers be absent. There is also little or no tendency to ulceration in the majority of cases in the early part of the disease. There is comparatively little heaping up of syphilitic material. These characters would lead one to suppose that there is something behind the localized proliferation of cells—if such exist; something, too, which will explain the appearance of morbid phenomena at this particular point, aside from mere anatomical peculiarities. For obvious reasons it has not been clearly shown whether the same efflorescence and engorgement does not occur in the other portions of the alimentary canal in the early period of syphilis. Admitting that there is a diffuse accumulation of cells in the pharyngo-faucial tissues, there should be something more than local anatomical peculiarities to explain it. Is it not a result of vaso-motor changes similar to those which prevail in the roseola, and which are due to the impression of the syphilitic poison upon the central nervous system? The same condition, in all probability, prevails in other portions of the alimentary tract, which, as is well known, are intimately associated with the sympathetic nervous system. It is only at this point, however, that the parts affected are so superficial as to be open to observation. At this point, moreover, causes of irritation are more prevalent than in other portions of the alimentary tract. The food which is swallowed, rapid changes of temperature incidental to the function of respiration or to the ingestion of fluids at various temperatures, the use of the voice, the contact of irritating secretions from the nose, and the inhalation of irritating substances from the atmosphere, might quite rationally be expected to contribute to the tendency to localization of the syphilitic process in the throat. In the presence of such local causes of irritation, vaso-motor disturbance incidental to the impression of the syphilitic poison upon the central nervous system might be determined at this point, while absent in every other situation.

As we have seen, the vaso-motor impression which underlies the development of the roseola is substituted later on for a more or less pronounced trophic disturbance, as manifested by the heaping up of neoplastic material, the development of pus, the occurrence of ulcerations, etc. *Pari passu* with the supervention of this trophic disturbance in the case of the skin we have a similar state of affairs in the pharynx and mucous membrane of the mouth, as manifested by the development of mucous patches, ulcers and macular eruptions, the latter being particularly marked upon the roof of the mouth.

On careful observation of successive crops of lesions in syphilis, it will be found that the tendency to destruction of tissue and to the involvement of various important functions of the body grows more pronounced as the case progresses. We see, therefore, in watching a case from its inception, the gradual supervention of a trophic upon a vaso-motor disturbance, and as the case progresses this trophic aberration becomes more and more pronounced, until finally in the period of the so-called sequelæ we have marked destruction of tissue in various situations—a destruction so marked as to have led to the impression at one time that the syphilitic poison produced in such instances corrosion of the tissues. In the absence of a corrosive power of the syphilitic poison—and as we know its infectious properties decrease as the case progresses—the only logical explanation of the serious effects of late syphilis is the theory of thropho-neurotic disturbance.

Let us glance at the series of morbid phenomena in a typical case, and the truth of the foregoing assertion is at once apparent.

First, we have a macular eruption or perhaps an efflorescence of the skin, which is not at all raised above the surface. This—the roseola—does not produce any destruction of tissue. Later on we have the development of papules; a little later in the natural order of succession, pustules, perhaps followed by ulceration. Still later we have marked ulceration of an ecthymatous or perhaps rupial character. Interspersed with these various later lesions or occurring alone, we may have a development of scaly lesions, —sometimes tubercular syphilides. Coincidentally with the papules we have the ap-

pearance of sore throat, followed later on by mucous patches and perhaps ulceration. As the case progresses, the bones may be affected; iritis may occur; well along in the period of sequelæ, necrosis of the bones may develop. It will be found that the tendency to suppurative processes and to destruction of tissue increases as the intensity of the infection diminishes. The later lesions are found to be frequently associated with disturbance of a known nervous character, cerebral syphilis in its various forms being quite apt to occur.

The exceptions to the gradual increment of severity of syphilitic lesions are so unusual that they are now designated as precocious. Malignant or precocious cases of syphilis are explicable in my opinion only upon the theory of idiosyncrasy.

It is in the late secondary and sequelar lesions of the disease that the apparent tropho-neurotic character of the manifestations is most pronounced. I had long been impressed with the peculiar course of some of the lesions of bone in late syphilis, particularly those affecting the head and face. It had seemed to me that the destructive effects exerted by the morbid process upon the bony tissue was greatly disproportionate to the objective and subjective phenomena which preceded the actual destruction. For example, I think that, upon reflection, it will be found that the objective morbid phenomena which precede the necrosis *en masse* of various portions of the palate and of the superior maxillary and nasal bones are comparatively slight when we take into consideration the fact that the affected bone is entirely destroyed. Indeed, it often seems that the first objective phenomena perceptible in cases of necrosis of the parts mentioned is incidental, not to the destruction of the bone, but to an attempt on the part of nature to rid the tissues of offending foreign material. Thus I have observed cases in which the greater portion of the palate was entirely destroyed, yet very little manifestation of trouble was apparent until suppuration occurred with a small point of ulceration of the soft parts covering the bone and the discharge of a small quantity of pus—a quantity, by the way, so small as to be entirely disproportionate to the extent of the morbid process. On passing a probe into the small sinus thus formed, one who is not thoroughly conversant with the peculiarities of such conditions would probably be surprised to find that a large portion of the bone is dead and perhaps loose in the tissues. It will be found upon observation of processes other than syphilitic, which produce necrosis or caries of bone, that there exists prior to the death of the bone structure, quite pronounced objective phenomena in the way of pain, swelling and deformity of the part, these symptoms indicating the existence of proliferated inflammatory material which subsequently produces destruction of the vitality of the bone by simple pressure. Those morbid phenomena in syphilis, which involve bone or periosteum in the early part of the course of the disease, are accompanied by objective phenomena relatively more prominent than those late lesions which are now under consideration; yet, at the same time, they are rarely followed by caries or necrosis. These processes, it seems, are reserved for the late secondary or sequelar period of the disease. Thus it will be seen that, although the local process is apparently more severe in the early cases, destruction of the vitality of the bone is not so likely to occur. There is a marked difference between the nodes and diffuse sub-periosteal swellings of early syphilis and the condition of the bone and periosteum which precedes necrosis *en masse*, or, for that matter, caries, in the late stages of the disease. In addition to the disproportion between the degree of destruction of bone and the objective phenomena preceding such destruction, another point worthy of comment is the fact that syphilis possesses the power of dissecting out definite portions of bone tissue, apparently by cutting off their nutritive supply—in a manner as clean as could be effected by the knife. Thus I have specimens in my possession of the intermaxillary bone, portions of the alveolar process of the maxilla, the palatal and nasal processes of the superior maxilla, the malar bones and the nasal bones, which became necrosed and loosened, and were removed from cases of late syphilis. These fragments of bone present as natural a conformation in many instances as in their healthy condition.

As far as I have been able to observe, there seems to be a special predilection in cases of late syphilis for those parts supplied by the fifth nerve, indicating that the portion of the sympathetic system which presides over these parts is especially sensitive to the syphilitic impression.

I have found in some instances the tendency to unilateral destruction of bone

tissue particularly marked. Thus the palatal process of the superior maxilla upon one side, or the superior alveolus upon the other, may necrose and give way without the corresponding portion of bone becoming affected. Indeed, it seems that in most instances in which necrosis attacks the bones of the face, it is impossible to check the process until the line of demarkation represented by the anatomical outline of the affected bone has been reached. The peculiar manner in which one-half of a structure may be dissected away by the sequelar lesions of syphilis, is exemplified by a case of syphiloma of the tongue which recently came under my observation, in which the sloughing of the organ was limited by the raphe. This case subsequently went on to malignant transformation. I removed the tongue with the galvano-cautery; the disease recurred; and the patient died of hemorrhage several months later.[1]

I have had several cases recently in which that portion of the superior maxilla corresponding to the intermaxillary bone was dissected out by the syphilitic process, with resultant loss of the incisor teeth, the remainder of the jaw remaining intact. There appears to be a peculiar predilection of late syphilis for this portion of the jaw. I have several cases in which caries occurred in this situation, with a consequent loss of one or more perfectly healthy teeth. These cases have appeared to me to be so characteristic that I have come to regard loss of the incisor teeth, without any apparent cause, as almost positive evidence of syphilis.

An interesting case, illustrating the unilateral limitation of some late lesions of syphilis came under my observation recently. The patient was a gentleman who had an obscure history of syphilis, dating some years back. Several weeks before coming under my observation, ulceration began at the roots of the moler teeth upon one side and extended outward to the palate. When I first saw the case the ulceration had extended outwards upon the hard palate for about three-quarters of an inch and forward to the median line, when it abruptly stopped. The appearance of the ulceration was quite typical. There was no disease of the teeth or jaws to account for it. Healing was quite rapid under appropriate anti-syphilitic treatment.

[1] Apparent cancerous transformation of syphiloma of the tongue. Amputation by the galvano-cautery. *Medical Record*, Oct. 26, 1889.

Another interesting case of a somewhat similar character is that of a gentleman who had syphilis seven or eight years ago. For the last three or four years he has had occasional symptoms of the disease. A few months ago ulceration occurred about the roots of the upper incisor teeth, and was attended with slight caries of the intermaxillary bone. The process was checked by appropriate treatment; the teeth, which were loosened, finally becoming perfectly solid. About six or eight weeks after the ulceration was healed the patient consulted me for supra-orbital and infra-orbital neuralgia and hemicrania. This resisted all treatment, except anti-syphilitic remedies. It yielded readily to iodide of potassium in large doses. Within a few days the patient has again consulted me for paræsthesia of the right side of the face, which he noticed for the first time while being shaved. His face having been excessively tender before, he very speedily noticed a lack of sensibility under the razor. Associated with this paræsthesia, there is obscure pain, which he locates back of the eyeball. The *ensemble* of symptoms in this case points to central disturbance, and shows a manifest predilection of the sequelar lesion for the fifth cranial nerve.

The association of obstinate tubercular syphilides with nervous syphilis is well known. It seems that the danger of involvement of the central nervous system is directly proportionate to that of severe syphilides.

In considering the tropho-neurotic character of the late lesions of syphilis, I do not ignore the fact that syphilis may act directly upon the nervous system in several different ways:

1. By the direct effect of syphilitic deposit upon the nerve cells or fibres, or membranes of the brain and spinal cord.

2. By changes in the membranous envelopes of the brain and spinal cord.

3. By deposits in and about the blood-vessels which induce circulatory disturbance.

4. By a proliferation and condensation of connective tissues which remains after the syphilitic material *per se* has been removed.

There is probably a difference in the late and early forms of syphilitic lesions, in the manner in which the tropho-neurotic element is brought about. Thus it may be due, in the first place, to a direct impression of

the syphilitic poison upon the sympathetic nervous system; secondly, upon direct pressure upon the nervous structures; thirdly, upon a disturbance of function and nutrition of the nervous structures incidental to interference with blood supply.

It is probable that mercury acts upon the nervous system in very much the same manner as does syphilis. It is very difficult to differentiate late syphilitic lesions of the bones and of the mucous membranes from those directly due to the action of mercury. That mercury exerts a powerful effect upon the sympathetic nervous system is, it seems to me, shown conclusively by the phenomena of ptyalism, which cannot be accounted for solely upon the theory of the production of irritation. The well-known power of mercury over the secretions is probably due to its influence upon the sympathetic ganglia. When the injurious action of mercury is superadded to syphilis, there is a more marked tendency to tropho-neurotic phenomena than in well-treated cases of the disease. Indeed, the excessive use of mercury often seems to determine the predilection of late syphilis for the bones of the head and face. It is quite as capable of producing necrosis or destructive ulceration of these parts, as is syphilis *per se*.

Positive demonstration of the dependence upon nervous disturbance of the phenomena which I have outlined is, of course, difficult; but the inferences which I have drawn appear to me to be logical. In considering the question of trophic disturbances, in their relation to destructive syphilitic processes, it is well to remember the familiar physiological experiment of section of the sympathetic in the neck of the rabbit. The same experiment is also interesting as bearing upon the faucial congestion of early syphilis. The reddening of the ear of the rabbit, the inflammation and sloughing of the cornea incidental to section of the sympathetic are certainly suggestive. To carry the analogy of this physiological demonstration a little further, I would call attention to the serious corneal trouble which sometimes results from herpes frontalis *seu* orbicularis.

812 Opera House.

Dextrine Mucilage. — Four hundred parts of dextrine are stirred into 400 parts of water; then add 200 parts more of water, 20 parts of glucose and 10 parts of aluminum sulphate; heat the mixture to 195° F., when it will become thin and transparent.

INFLUENZA—LA GRIPPE.[1]

BY WILLIAM B. DEWEES, A. M., M. D.,
SALINA, KANSAS.

Mr. President and Fellow-Members: The repeated accounts given during the pandemic prevalence of the late epidemic of influenza, in the columns of both the medical and the daily press, and a personal experience with the disease, has familiarized the profession so extensively with all the divers phases of this most unpleasant malady, that anything said on the subject may seem trite. Nevertheless, the occasion is one which cannot be allowed to pass with no formal notice and full consideration by this Society.

In presenting this subject for discussion, the time allotted allows scarce more than bringing out the more salient features, and even in this I find myself somewhat at a disadvantage. The absence of reliable statistics regarding the prevalence and progress of this wide-spread disease, makes its exact study more difficult. From the knowledge we have, influenza is not in itself a grave disease; yet its complications and the sequences are sometimes most important. This fact alone not only justifies, but demands a close examination of the clinical history of this disease—more especially as manifested during the last epidemic.

Influenza is by no means a new disease, though most of the medical men who have been graduated within the last ten years have seen nothing of it prior to the last epidemic. The earliest record known of this disease is probably found in an outbreak in the Athenian army in Sicily, 415 B. C., as recorded by Diodorus Siculus. From the ninth and tenth centuries of the Christian era, references to epidemic influenza—now called epidemic catarrhal fever or *la grippe*, etc.—begin and multiply; and from that time to the present, the literature of the subject has grown steadily. History shows that since the year 1173 to the present time, there have been sixty-two epidemics of influenza in Europe, America and elsewhere, averaging one in about every eleven years. During this period it assumed a pandemic form fifteen times. One of the most remarkable epidemics of which we have record is that which started in China in 1830, and swept rapidly over Asia, Europe and America,

[1] Read before the Golden Belt District Medical Society of Kansas, April 3, 1890.

lingering here and there, and breaking out afresh in places until 1833.

Since that time there have been a number of less wide-spread epidemics, including that which occurred in this country in 1879—in which I had my first experience with the disease. It may not be out of place to note in this connection—as most of you can recall with me—the facts of a similar disease being very extensively prevalent among horses at the same time, which was chiefly known as "pink-eye," and proved much more fatal than the disease in man. The disease has always been particularly remarkable in this, that it has been the most widely and generally-spreading epidemic known. It has seldom appeared in any one country without appearing successively in every other part of it. The last epidemic, which has just swept the world from east to west, has excited universal attention, and sufficient time has at length elapsed, even in this country, to enable us to present our recorded observations and to exchange our individual views in regard to it, founded upon actual observations and not upon mere hypothesis.

According to the journals, the last epidemic made its first appearance in Europe, where the first cases recognized were observed in St. Petersburg, October 15, 1889, its diffusion and spread being so rapid and general that by November 17 it had invaded Asia, Finland, Vienna, Paris, etc., and by December 20 it was epidemic in nearly all the capitals and large cities of Continental Europe. In this country it was first recognized in Boston, December 17, in New York City, December 20, in Chicago, December 23, etc., thus extending from the Atlantic to the Pacific, from Canada to Mexico and Central America within one month. Practically, this epidemic has extended from St. Petersburg to the Pacific Coast, over two continents from north to south, within three months—extending over a greater area and with greater rapidity than any epidemic of which we have a record.

The disease made its advent in Salina, Kansas, about December 25, 1889, gradually but surely making inroads until about ten days later, when it began attaining rapid headway, and prevailed extensively for about eight weeks. Thereafter its subsidence was marked, though less rapid than its onset, and it continues to manifest itself in isolated cases. During this period, it is safe to estimate that one-third of the population of this city was affected by the poisonous influence of the disease, but that, owing to the mildness of the general type of the affection, probably only one-half of the number affected came under the care of the medical profession. While there have been a great many cases and much sickness, no death is directly traceable to the influenza *per se*. The total number under my care and observation during this period has been over five hundred cases, the largest number of cases I have seen sick in bed in one day being forty-one. The period of its greatest prevalence was from January 14, 1889, to February 11, 1890, during which four weeks there came under my care three hundred and ninety-six cases. In describing the disease as observed in these cases, I shall first note the general symptoms in their usual order of appearance. The disease came on like a severe cold, but with much greater and more speedy prostration of the muscular forces—general debility, surprisingly out of proportion to the intensity of the fever and the catarrhal processes. Chill, backache, headache, muscular pain, great debility of physical and mental strength and energy, fever, anorexia and insomnia were the leading or earlier symptoms in almost all well-marked cases; and these indicate the action of a systemic poison, which seemed to have a marked predilection for the nerve centres and mucous membranes, as evidenced in its progress by developing into two well-marked types: the Nervous and the Catarrhal. The symptoms as manifested under the two varieties may be classed in the following symptomatological group:

First. The Nervous Type.—The symptoms are purely nervous, being a continuation of the foregoing initiatory symptoms—minus the chill—with increased severity. Backache, headache, great debility, pains in the limbs and trunk, and frequently painful deglutition, without any disturbance of the respiratory or alimentary tract, save loss of appetite and often nausea. As a rule the severer pain occurred near to, rather than directly in the larger joints, and more generally in the muscles. In the later stages of the disease it often appeared in the lower intercostal spaces, probably by affecting the diaphragm, the patient complaining of being tight, as if bound by a band around the body, or in some single muscle, such as the deltoid, etc. I have seen cases comparatively well in three days, then suffer for six

weeks with severe pain in the left deltoid. Dizziness, sleeplessness, a tendency to fainting and sometimes hebitude, occurred mostly in women, regardless of any conditions peculiar to sex.

Second. The Catarrhal Type.—This was invariably preceded by a similar prodromic stage, and possessed throughout its course marked nervous symptoms analagous to those of the first form—backache, headache, muscular pains, great debility, anorexia, insomnia, etc. In addition to these, it was chiefly recognized by catarrh of the mucous membranes, which again manifested itself in two distinct forms—the bronchitic and the gastro-intestinal; the former being characterized by coryza, sneezing, nasal-pharyngeal and bronchial catarrh, continuing for several days after the initial fever had subsided. The latter by catarrh of the alimentary track, sometimes accompanied by profuse vomiting and diarrhœa.

Both of these varieties were accompanied by a continued fever, the temperature rising rapidly on the first day to 101°, 103° or even 105° F., in due proportion to the severity of the preceding chill, and continuing for several days—usually from one to three days, very rarely longer, where a more or less copious, acid, ill-smelling sweat marked the crisis, which was followed by a rapid decline and convalescence. It is interesting to note, that in all cases of the catarrhal type, a mild sweat preceded the oncoming of the catarrhal symptoms, which usually occurred at the end of the first day, while in those of the nervous type no such phenomenon was noticed. It was the nervous type of this disease, especially, that finished its course in a few days; for the cough and other catarrhal symptoms much more frequently continued longer; and often when they appeared to be going off, they were suddenly renewed with all their former characteristics, by any fresh exposure to cold. Hence, relapses were not uncommon among the cases of the catarrhal variety, while those of the nervous type were comparatively immune. The period of convalescence was very variable, and seemed to depend largely upon the intensity of the attack in both varieties, some persons feeling ready for work as soon as the fever had subsided, while others were unfit for any exertion, felt wearied and depressed, and suffered from continued nervous symptoms for weeks after. The rarer symptoms observed, were chiefly sharp, neuralgic pains, muscular spasms, hyperæsthesia of the skin and a scarlatinoid eruption.

The complications encountered were mainly catarrhal bronchitis, catarrhal pneumonia, dysenteric diarrhœa, otitis, otorrhœa and bronchorrhœa.

The disease was no respecter of age, sex or occupation, the oldest case under my care being eighty-six years old, and the youngest two years old. Of the 513 cases observed, my notes show the following deductions: 327 cases of the nervous type and 186 cases of the catarrhal type of the former variety. There were 287 mild cases and 40 severe cases; and of the latter 131 mild cases and 55 severe cases. 129 cases recovered in three days; 314 cases recovered in eight days; 42 cases recovered in one month; 28 cases lingered for two or three months. Relapses occurred in 68 cases: all of the catarrhal type, with but five exceptions. Of the rarer symptoms and complications, there were noticed the following:

Neuralgic pains, principally in the limbs, neck and face and frequently in the head, like hemicrania, occurred in 297 cases.

Muscular spasms, chiefly in the muscles of the limbs and neck, were noticed in 83 cases.

Hyperæsthesia of the skin of the palms of the hands and of the soles of the feet was observed in one case only.

A scarlatinoid eruption manifested itself in four cases.

Catarrhal bronchitis, complicated, 49 cases.

Catarrhal pneumonia appeared as a complication in six cases.

Dysenteric diarrhœa, profuse and alarming, occurred in two cases, both females.

Otitis, otorrhœa and bronchorrhœa each developed in but one case respectively.

The most interesting of these, to me, was the scarlatinoid eruption.[1] The four cases occurred in the same building—a four-story brick structure, with high ceilings, heated by steam and well ventilated—a boarding school, wherein about one hundred persons congregated daily, including day scholars from the city. Of the seventy persons living in the building, thirty-three were

[1 Dr. Anton Minauf, of Seitenstettin, Austria, publishes in the *Wiener med. Presse*, March 23, 1890, a very interesting communication in regard to the eruption or rash of epidemic influenza—or the Grip—as he and Dr. Wawra observed.—EDITOR OF THE REPORTER.]

affected with well-marked influenza, including the four cases under consideration.

Case 1. Was taken January 19, 1890; temperature 103° the first day, with furred tongue, etc., which continued until the afternoon of the second day, when the peculiar eruption appeared, first on the face, then on the neck and chest and continuing until the entire body was covered. The eruption was decidedly erythematous, of irregularly outlined mottlings at first; but soon coalescence followed, when the appearance was very much like the characteristic eruption of scarlet fever. This eruption continued prominent for six hours, when a profuse sweat terminated the symptoms, and the patient, after a good night's sleep, was discharged and resumed his studies on the following day, January 21. No desquamation followed. Nothing was thought of this eruption in this case, as I ascribed it at the time to the untoward action of the quinine and chloral administered the preceding night.

Case 2. Began January 23, 1890, and on the evening of the same day, the temperature rose to 103½° F. The tongue was coated, with slightly enlarged papillæ; the conjunctivæ and the fauces were very much congested; deglutition was very painful, and there was nausea and vomiting, and an eruption, similar to that in Case 1, began appearing on the face. This being noted, on my first visit, and as no medicine had yet been prescribed or taken, I became fearful of its being a case of scarlet fever. The case was duly isolated, and the nurse was instructed to allow no one to enter the room, which was kept dark, warm and well-ventilated. I prescribed a placebo, and ordered a milk diet exclusively. The next morning my notes show the temperature the same, with all the other symptoms, except that the eruption now covered the neck, chest, abdomen, and the upper part of both upper and lower limbs, presenting the same irregularly outlined mottling. By evening of the second day coalescence was established, and there was a more uniform bright scarlet hue to the eruption, which now covered the entire body. To look at the case was to pronounce it one of scarlet fever, so striking was the resemblance. I now prescribed quinine and chloral in full doses, twenty grains of each at bed-time. A good night was passed, with refreshing sleep, preceded by a profuse sweat (the effect of the quinine). On the third day morning I found the temperature 100° F., the body literally covered with sudamina, the eruption less prominent, and desquamation commencing to take place. The conjunctivæ and fauces were much less congested, and the tongue was almost clean.

The symptoms characteristic of the influenza had abated, as usual, after the action of quinine and chloral. The eruption and desquamation continued jointly in this case until February 2, by which time the eruption had faded entirely, but desquamation continued for about one week longer. The patient convalesced nicely, with full recovery to former health.

Case 3. Started January 27, 1890, the temperature rising to 104½° F. the first day evening. The conjunctivæ and fauces were congested, and the tongue was coated with a thick, yellowish fur, and the papillæ were enlarged. The hearing was impaired, evidently from involvement of the Eustachian tubes. The eruption, though less marked, manifested itself on the face, neck and chest, and grew more marked day by day, having a somewhat venous congested hue and showing less mottling than in the preceding two cases. The sixth day of the disease it suddenly became more intense in scarlet hue, having now covered the entire body, and its bright color continued until February 17, when it suddenly faded after a profuse sweat. It was followed by a crop of sudamina as abundant as in Case 2. In this case desquamation commenced on the fourteenth day of the disease, and continued for four weeks. Otitis of both ears was developed as a complication in this case. Convalescence was very tedious, though the patient made a good recovery.

Case 4. Began February 2, the temperature rising to 100½° F. the first day, with no striking symptoms but those common to influenza. The second day the temperature rose to 101° F., and the eruption made its appearance, quickly passing from the face downward over the entire body. There was conjunctivitis, and the fauces were slightly congested. Desquamation commenced on the third day. The eruption faded on the sixth day and the patient was discharged well on February 7. These four cases presented, in addition to the symptoms enumerated, most of the symptoms common to influenza which marked the other cases. There were some strong points of resemblance between them and dengue and scarlet fever, yet on the whole they were unlike either.

The treatment was generally confined to

the special symptoms as they arose. The morbid condition in itself being self-limited, and the prognosis favorable, it was thought better to care for the symptoms than to attempt to cut the disease short. In the milder cases, nothing was prescribed save rest in bed, simple nutritious diet, a room kept quiet, equably warm to suit the comfort of the patient and well ventilated. During convalescence avoidance of exposure and fatigue was enjoined.

In the severer cases and in the presence of complications the greatest skill was sometimes requisite. The tendency to abdominal congestion and gastric irritability, so frequently prominent in the beginning of the severe cases, was happily overcome by giving from 5 to 10 grains of colomel, triturated with sugar of milk, and following it with a Seidlitz powder or half an ounce of Rochelle salts, dissolved in sweetened water, one hour later. This was given on the first day, so as to secure its evacuating effect before night-fall. Then, if the suffering was severe, from 10 to 20 grains of quinine, in five-grain capsules, was administered on one dose an hour before bed-time, and was followed with from 15 to 25 grains of chloral hydrate, in five-grain capsules, also at one dose, on retiring. The quinine reduced the fever and left its happy equalizing tonic effects upon the system, while the chloral controlled the evil after-effects of the quinine on the head and ears, and produced its characteristic sleep, thus overcoming the insomnia and giving rest to the fatigued body.

The effects of this were so pleasing that the patients frequently declared themselves well on waking the following morning; and indeed they often convinced me that I was almost capable of cutting short the course of the disease.

In severe cases the same injunctions were given as to diet and avoidance of exposure and fatigue, as in the milder cases. During convalescence the best results were obtained from

℞ Liquoris potassii arsenitis . . . . . f℥ij
Syrupi hypophosphitis compositi ad . f℥viij

M. Sig.: Dessertspoonful three times daily.

or

℞ Liquoris potassii arsenitis . . . . . f℥ij
Elixir ferri, quininæ et strychininæ phosphatis . . . . . q. s. ad f℥iv

M. Sig.: Teaspoonful three times daily.

The two cases of dysenteric diarrhœa yielded promptly to

℞ Spiritûs chloroformi . . . . . f℥j
Tincturæ capsici . . . . . f℥j
Tincturæ opii deodoratæ . . . . . f℥jss
Listerine . . . . . f℥ij
Aquæ menthæ piperitæ . . q. s. ad f℥iv

M. Sig.: Dessertspoonful in water every 15 to 30 minutes until stools are less frequent; then every two hours.

The case of bronchorrhœa was quickly benefited and cured by

℞ Spiritûs chloroformi . . . . . f℥jss
Acidi hydrocyanici diluti . . . . . f℥j
Tincturæ sanguinariæ . . . q. s. ad f℥iij

M. Sig.: Teaspoonful in sweetened water every 2 to 4 hours.

Notwithstanding the fact that influenza has been known for centuries, its real cause is as much a mystery to-day as it ever has been. Probably at no time was the profession more eager to solve this question than at present, for bacteriologist and sanitarian have been busy ever since the last epidemic began, earnestly searching for a vital cause for influenza; and it is to be hoped that the day is not far distant when the profession will be relieved from this disease. The theories advanced have been formed upon hypothesis, without a single exception. History seems to show beyond doubt, that there are epidemic cycles; that certain periods are broadly discriminated in medical history by the wide prevalence of diseases of this sort. This was recognized as far back as the age of Sydenham, who attributed them to certain unknown changes which take place in the bowels of the earth—*pro varia scilicet ejusdem ætate ac duratione.* Somewhat more distinctly the epidemiologists of a century later attributed epidemic influenza to "cosmical" and the "telluric" agencies, which may also be expressed as those relating to the atmosphere and the *soil:* a division borrowed apparently from Hippocrates. Carrying these upward to higher generalizations, the learned Hæser, in his *Geschichte der Volkskrankheiten* (published in 1839) predicted that the time would come when, to explain the prevalence of these great epidemic periods, men of science would find them more or less in relation to the position of the earth with reference to the plane of the ecliptic, the progression of the magnetic meridian, the alternations in the temperature and moisture

of the earth's surface, the geological changes of water and land, and perhaps even to the progress of the solar system through space. Prof. Leyden, of Berlin, is of the opinion that influenza has sprung from dengue fever —a hybrid; and Prof. Nothnagel, of Vienna, lays great stress on its miasmic character; while others of equal repute are conjecturing on its being due to bacteria.

Does rational thought warrant our accepting such reasoning without substantial facts? We trow not; for there are many reasons which operate against such a desideratum. The poison cannot be dependent upon local surroundings, or upon climatic conditions; for we find that Siberia and Italy have alike suffered, and so have Canada and Mexico, and even Central America. The rapidity with which the disease spreads indicates that the poison is such as can be transmitted by the air; while its pandemic character, the uniformity of the symptoms produced by it, and the evident constitutional involvement, all entitle influenza to rank among the specific diseases.

A few words in conclusion, and I have done. Let us ever be mindful of the fact that man is, in a measure, the servant of the conditions which surround him; but he is not their slave. He must obey them until he understands them; then he dominates them by the divine right of the rule of intelligence over material force. So it will be even with the "Pestilence that slayeth at noonday:" by studying it, he will come to know it; by knowing it, to control it.

THE GRIPPE AS A CAUSE OF ABORTION AND MISCARRIAGE.

BY W. H. BANKS, M. D.,

MIFFLINTOWN, PA.

Since the prevalence of the recent epidemic of grippe, I have been looking eagerly in the columns of medical journals for communications regarding a feature of the disease which to me seems most peculiar, namely, abortion and miscarriage in pregnant women. In one of my cases this occurred after the administration of large doses (three grains four times per day) of quinine; and at the time I attributed the miscarriage to the use of this drug; but, the same accident happening in three other cases that were not influenced by this uterine stimulant, we may very properly conclude that the existing influenza, and not the quinine, was responsible.

The following is a list of cases:

Case 1. Mrs. C., multipara. She had had two normal labors, and one miscarriage, which occurred after severe fright and exposure.

While in the fifth month of pregnancy she was seized with *la grippe* and, during convalescence, began to suffer from severe bearing-down pains and a slight hemorrhage. Under the use of rest and opiates, these threatening symptoms were apparently relieved, but on rising from her bed they again appeared and miscarriage followed.

Case 2. Mrs. J., multipara. She had had two natural labors. The patient was in the seventh month of pregnancy when I was summoned to see her on Jan. 4, and found her suffering severely with facial neuralgia, and also presenting the typical symptoms of *la grippe*. I prescribed quinine, twelve grains per day, and antipyrin in five-grain doses every two hours. The painful symptoms rapidly abated, but on Jan. 8, she fell into labor and was delivered of a well-formed child which, however, lived but three days.

Case 3. K. B., primipara. In the eighth month of pregnancy, while convalescing from an attack of influenza, was seized with severe bearing-down pains and a slight hemorrhage. Under the use of rest, opium and a light vaginal tampon she was finally brought to term and delivered of a healthy child.

Case 4. Mrs. B., multipara. Had had one child and one abortion. She was in the fifth week of pregnancy, when she was seized with *la grippe*. During convalescence she began to suffer from severe pain in her back, thighs and groins and had a moderate hemorrhage. This continued for two weeks, when nausea and vomiting set in, and at this time she sent for assistance. I prescribed tinct. cannabis Indica in elixir lacto-peptino and powders of bismuth and oxalate of cerium, with absolute quiet. However, twelve hours after seeing her, she aborted an ovum apparently of an eight weeks' pregnancy.

—According to the San Francisco *Examiner*, Mr. Adolph Sutro is experimenting with cinchona trees on his estate on the neighboring sea-coast. He hopes to acclimatize at least some of the varieties from which quinine is produced.

Reports of Clinics.

VANDERBILT CLINIC.—NEW YORK. MEDICAL CLINIC.

PROFESSOR DELAFIELD.

Abscess of Liver.

Dr. Delafield referred to the patient who was presented at the Clinic last Thursday in whom he had made the diagnosis of abscess of the liver. The man gave the following history: Last summer he suffered from an attack of catarrhal dysentery (judging from the symptoms). In November he had an acute illness; he was confined to the house and complained of symptoms that pointed to an abscess in some location; since that time he had been steadily growing worse. Though able to be out of doors he was a sick man; he had lost forty pounds in weight. Examination showed the abdomen not distended; the liver did not extend below the free border of the ribs; yet it seemed to fill the hypochondriac region more fully than usual. Posteriorly there was marked dulness over the lower portion of the right lung. The man was admitted to Roosevelt Hospital, and the liver was aspirated, and 1000 c. c. of pus were evacuated. Only the right lobe was affected.

Dr. Delafield remarked that, from our knowledge of the manner of formation of these abscesses, that is, at the expense of the liver substance itself, there must remain but a shell of the right lobe. Hence, notwithstanding the fact that the patient has improved very much and continues to improve, Dr. Delafield is inclined to give a gloomy prognosis.

Subacute Diffuse Nephritis.

The first patient to-day was a man, 38 years old, who said he had been sick since last November. At that time, he says, he "caught cold." He had cough, with expectoration, shortness of breath, and wheezing. He lost flesh, had no appetite, and did not sleep well at night. He did not complain of headache or head symptoms, or stomach symptoms, and had no pains in any part of body. In January he was compelled to go to bed for a few days. At this time his feet swelled a little. Except for this, he has been able to work right along, though feeling that he was a sick man. His urine is increased in quantity, has a specific gravity of 1.010, and contains a large amount of albumin. His temperature is 101°, and his pulse is 126. His body is still fairly well nourished. Physical examination of the lungs gives negative results. The apex of the heart is displaced to the left about one inch, and the heart's action is rapid, regular, and not forcible. A thrill is communicated to the hand placed upon the precordial region. A systolic murmur is heard at the apex, and also at the base—not loud. There is increased arterial tension; but the pulse is in fair proportion to the action of the heart. The skin and mucous membranes are pale. The diagnosis is therefore: hypertrophy of the left ventricle (the murmurs do not necessarily indicate valvular disease) and subacute diffuse nephritis.

The foregoing history is a straightforward one of nephritis; and there is at present still an active process going on. In the same manner it would be wrong to say of a patient with fluid in his chest and an elevation of temperature, that he had simply fluid in his pleural cavity; for in reality he would have an inflammation of the pleura and an effusion. So this man has not chronic, but an active nephritis.

The indications for treatment are, first, to put the patient to bed, where he should remain until the temperature falls, after which, if his condition improves, he could be about the house. Later, if possible, he should be sent to a warm climate. This would not be advisable as long as the nephritis is as active as it is at present.

In the beginning he should be put upon an exclusive milk diet, and Dr. Delafield said that he would test the blood, to find the proportion of hemoglobin, and also to have a positive gauge to the extent of the improvement; for the color of the skin and mucous membranes cannot always be trusted. If diminution of the hemoglobin were found, iron and inhalations of oxygen would be called for. Opium in small doses, would also be of service, particularly for its action as a cardiac sedative. Morphia sulphate, 1/8 gr., four times a day, might be used for two or three weeks.

This patient has been very fortunate in having had so little dropsy. The rule in these cases is to have this a prominent symptom. It is probable that the albumin will persist in the urine for some time to come.

After repeated examinations, should the

specific gravity of the urine always be low, it would be natural to suppose that new connective tissue had been formed in the kidney. One examination would prove nothing.

Chronic Diffuse Nephritis.

The next patient, a man, painter by occupation and thirty-four years old, said he had always enjoyed good health, with the exception of occasional attacks of lead colic, up to one year ago. At this time he began to suffer from headaches. They would come every two or three weeks at first; but lately they have become more frequent. Since January 1, he had almost constant headaches, but less severe than before. These headaches would last from twenty-four to forty-eight hours, and would frequently be accompanied by vomiting and sometimes by convulsions. He would not lose consciousness. Between these attacks he was able to do work until December, when he entered Roosevelt Hospital. Since his last attack, which he had in the Hospital, he has had diplopia.

Examination shows a man fairly well nourished. His pulse is quick, and the arterial tension very much increased. His heart is enlarged, especially on the left side, and a loud, systolic murmur is heard at the base. The ophthalmoscope shows a neuro-retinitis, with hemorrhages in the retina. The urine has a specific gravity of 1.012, and deposits about one-fourth of its bulk of albumin—the same amount as when he first entered the Hospital.

Dr. Delafield called attention to the fact that though this was a case of chronic Bright's disease; yet it presented entirely different characteristics from the preceding case. This was the form in which the structure of the kidney is altered, and in which there is no exudation from the blood-vessels. It is probable the disease has lasted longer than one year: perhaps two or three. At first the only symptoms may have been increased arterial tension and low specific gravity of the urine, with, perhaps, no albuminuria. These signs gradually advanced, and renal symptoms proper set in. Those he suffered from were attacks of acute uremia. They would be preceded by increase in the tension of the blood-vessels, then would come the vomiting, headache and convulsions, and the general health began to fail. The latest advance is found in the neuro-retinitis. The pulse tension remains high, but can be influenced by drugs. As soon as the use of medicine is stopped it relapses to its former condition.

In the treatment of this case the indications are different from those in the last case. Here there is a very chronic process, and there are no acute symptoms. That which causes the most disturbance, at present, is the disorder of the arteries. This causes the uremia. From the inflammation in the kidney directly, there are but few manifestions. It would not be necessary to send this patient to bed; nor would a warm climate offer so much for him; though it might benefit him. His diet must be partly milk and partly solid food. Iron and oxygen are not indicated. Attention should be directed towards relaxation of the arteries. Chloral in five-grain doses, four times daily, might be used at first. If this does not benefit the patient, opium should be tried, in doses sufficient to relax the arteries, one-sixth to one-fourth of a grain of sulphate of morphia may be given four times a day.

Finally, nitro-glycerin may be given three times a day, the dose being one drop of a one per cent. solution, gradually increased to the point of physiological effect, or of tolerance. The skin should be kept in the best condition by frequent bathing and rubbing.

However, in this case the treatment would be, at best, palliative. The man might improve for a time; but the nephritis and the disposition of the arteries to contract would pretty surely advance, until the time would come when drugs would have no effect in diminishing the arterial tension. Then the disease would be near the end.

In both of these cases of nephritis the prognosis is bad; in this one it is the worst.

Tumor of the Pancreas.

The next patient was a man, forty-four years old, who had been before the class last April. He had been sent from the Clinic of Nervous Diseases at that time, with the diagnosis of neurasthenia, and to see if any other disease could be made out. None was discovered, and he was sent back with the diagnosis of neurasthenia confirmed. To-day he was again sent here.

The history he gave when first before the class was that he had had syphilis thirteen years before. Two years ago he commenced to complain of pains in the right side of the back, severe at night and slight during the

day. One and a half years after this the pain was severe day and night. He was pale, had lost thirty pounds in weight, complained of frequent micturition, and had slight œdema of the feet. His urine had a specific gravity of 1.026 and at no time contained abumin. Examination of the blood showed 3,879,000 red blood corpuscles to the millimeter, and 82 per cent. of hemoglobin. The heart's action was somewhat increased; but the physical signs were negative. There was no apparent cause for his sickness.

He was put upon a course of antifebrin and morphine; and his pains left him; but he still was not in good health. Six months ago—about five months after his first examination here—he commenced to notice that his stools were light colored. Three months ago he had pain in the upper part of the abdomen, which has continued. Two months ago he began to have jaundice. He had some nausea, no vomiting. He lost but little flesh. His urine now shows a specific gravity of 1.020, with no albumin, and contains bile pigment. Examination shows the man to be fairly nourished and not very markedly jaundiced.

As he lies upon the table, there is apparent a fulness in the upper part of the abdomen. It is seen to move as he breathes. By palpation, a solid mass is mapped out, which fills the right side of the epigastric region. It is hard and irregular and deep-seated. To the right of this is another tumor, small in size, with apparently fluid contents, in the region of and corresponding with a distended gall-bladder. The former tumor, which is nearly the size of the fetal head, is somewhat movable, and is connected either with the pylorus or with the head of the pancreas or the wall of the common bile-duct.

Dr. Delafield did not think it felt exactly like a tumor of the pylorus; it seemed too deep-seated, and was not as freely movable as these growths sometimes are. And again, a tumor of the pylorus of that size would produce gastric symptoms, and would have more effect on the patient's nutrition—though some patients with this condition do thrive wonderfully.

The new growth presses upon the common bile-duct, and hence the distended gall-bladder and the jaundice. All things considered, Dr. Delafield was of the opinion that it was probably a malignant growth from the head of the pancreas; and he believed that it was not present when he examined the man last April, and that it had existed about six or eight months.

PERISCOPE.

Operations for Hernia in Children.

Mr. Edmund Owen, in speaking on the subject of hernia in children, in a lecture delivered before the Medical Society of London, and reported in the *Medical Press and Circular*, Feb. 12, 1890, said that there are some herniæ with which it is beyond the power of the surgeon successfully to deal with any truss whatever; the protrusion may keep up for a short while, but as soon as the child begins to get about it slips down again, and lies compressed beneath the pad. If a truss with a stronger spring be employed the pressure becomes intolerant or the skin is chafed. The medical attendant and the parents grow weary of the case, and the child is allowed to go about with a certain amount of bowel in the scrotum—an amount which generally becomes an increasing quantity. To offer an equally unsatisfactory state of affairs, though the hernia of another child is not large nor particularly unmanageable, his parents are too poor to supply him with the necessary apparatus, and too ignorant or careless to give the necessary help in making it available.

What, asks Mr. Owen, is the proper course to adopt with regard to such children? "What is their exact age?" some one may ask. This has very little influence on the question, when we have to do with ruptured children who cannot, for one reason or another, be satisfactorily dealt with in what one may call the gentle method—that is without operation. "But," rejoins the inquirer, "you surely will not advise a cutting operation for the cure of a reducible hernia in a very little child!" The surgeon's reply is that it is his duty to cure the child, and if he cannot do so in a bloodless way he must submit the child to the risk of a cutting operation. And now comes a very important point in the consideration of the question, and one of which we must not for a moment lose sight when estimating the risks of the radical treatment—unless the boy be solidly cured of his hernia he will be every day of his life in peril of a knuckle of bowel becoming strangulated. And if the strangulation occurred at a time when,

and at a place where, adequate assistance is not forthcoming, or if the child—now grown into manhood, and always careless of himself—fail to call in surgical aid until the intestine has become tightly pinched for some hours; what about risk? Here, surely, is a terrible risk; yet it is the same patient, the same open funicular process, and the same hernia with which we had been dealing years before. Unfortunately, though we have diminished risk in connection with the practice of our art, we have not entirely abolished it. Indeed, every important step through life is associated with risk, and surgical progress can never be freed from it. And though we must never allow ourselves or our patients to think too lightly of surgical risk, still we shall do well in encountering it in such circumstances as we are able to select, not in those which blind chance would force upon us.

Of course, there will be some badly-ruptured children who are not suited for the radical operation—the feeble, sickly, ill-nourished and imbecile. Sir Joseph Lister has rightly said that the judicious selection of cases is an antiseptic measure, and certainly if we are to get the best results for the operative treatment of congenital hernia we must exercise considerable discretion in the choice of our subjects.

Sometimes we hear the operative treatment spoken of as the "radical cure." Radical *treatment* it is, and cure it may be; but to talk of it as the "radical cure" is to surround the procedure with an attractiveness which may mislead the parents of the child and disappoint the inexperienced operator. I cannot attempt to say in what percentage of cases in childhood the radical operation fails to cure the hernia, and statistics which may be prepared from the published reports can, for obvious reasons, be barely approximate. Surgical statistics which are taken over general areas, are never of much use, for the collector cannot take into due consideration such important factors of the nature of original defect, the capacity as the operator and the physical value of the patient.

The open method of the treatment of congenital inguinal hernia is based upon a very solid ground, inasmuch as it is designed simply to make good a defect which Nature had omitted efficiently to deal with. At, or shortly after birth, there should no longer be a tubular communication between the peritoneal cavity and the tunica vaginalis; should the passage remain wide open a piece of bowel is more than likely to enter it, and, having once descended into it, the task of keeping it out by a truss is, as we have already admitted, sometimes one of great difficulty, and in rare instances a practical impossibility. These last are the cases for which the open method is needed.

Effect of Gastric Juice on the Tubercle Bacillus.

Zagari (as reported in the *Centralblatt für Bakt. und Parasit.*) has recently performed a number of experiments for the purpose of determining the action of gastric juice upon the bacillus of tuberculosis. After feeding dogs with excrementitious matter from tuberculous patients, and also with the organs of those dead of tuberculosis—both being proven to contain bacilli in abundance—he found that so far from suffering damage from their unwholesome diet, some of the animals even became fat upon it. The excrement of the dogs on examination proved to contain bacilli in perhaps greater numbers than that fed to them. Inoculations with these sufficed to infect guinea pigs with tuberculosis, showing that the bacilli had well resisted the action of the gastric and intestinal fluids. This is the more noteworthy, since the acidity of the gastric juice of the dog is high.

Zagari also submitted tubercle bacilli to the action of gastric juice outside the animal organism, with the following results:

After from 3 to 4 hours' exposure at 38° the bacilli still possessed their full virulence.

After from 18 to 24 hours their virulence was completely lost.

After from 6 to 8 hours' exposure, their virulence was somewhat diminished, the disease following inoculation of guinea pigs very slowly.

After from 7 to 9 hours a local tuberculosis alone could be established.

The acidity of the gastric juice of the dog equals 0.159 per cent.; that of gastric juice of consumptives whose excrement was used equals 0.0675 per cent; that of gastric juice used in subsequent experiments equals 0.1652.

These results of Zagari agree very well with those obtained by Straus and Wurtz (see MEDICAL AND SURGICAL REPORTER, March 8, 1890), who exposed various pathogenic organisms, amongst others, that of tuberculosis, to the action of gastric juice,

having the same object in view as Zagari. Their experiments were all made outside the animal organism. Gastric juice was taken from dogs, men and sheep, and the bacilli were exposed to it at a temperature of 38° C.

Judging from these results, we must come to the conclusion that so long as the gastric juice retains a sufficient degree of acidity, tuberculosis of the alimentary canal will be unlikely to occur. The practical application is not far to seek. We must, by some means, keep the gastric juice of tuberculosis patients in its normal condition as regards acidity, or even increase it, so far as compatible with good digestion. — *Canadian Practitioner*, April 1, 1890.

Oatmeal Snares.

We have nothing to say at present concerning the numerous vaunted benefits of oatmeal as a food commodity, and, indeed, there can be no doubt that good oatmeal, properly prepared, is of benefit to the human system. But the question arises whether it is not a fact that in our present age of hurry and the desire to do things quickly, many people injure their digestive organs by eating oatmeal not sufficiently cooked, and, therefore, in a condition in which the digestive fluids cannot act upon it, leaving it undigested simply to act as any foreign body would act in the system, as a violent mechanical irritant. We are forced to this conclusion by the now too prevalent advertisements of oatmeal prepared by different manufacturers, and claimed to be so prepared as to enable it to be cooked in from three to five minutes. This is simply an impossibility. These kinds of so-called oatmeals are simply decorticated oats, which before grinding are steamed. This steaming destroys any low organisms that may be in the oats. A little bicarbonate of soda and lime is added to help dissolve the albuminoids, and in some instances diatase to increase the converting power of the starch to sugar, but there is nothing in this process that can, in our opinion, so alter the chemical nature of oats or oatmeal as to make it possible to cook it ready for easy digestion in three or five minutes. Against this snare and delusion we would warn the reader. While thoroughly cooked oatmeal, cooked in the good old-fashioned way, is no doubt a nutritious dish, these deceitful and misleading prepared oatmeals are a constant source of great danger, and, to be on the safe side, avoid them.—*American Analyst*, April 3, 1890.

Aristol.

At the meeting of the Société de Thérapeutique of Paris, held March 12, 1890, and reported in the *Progrès Médical*, March 22, 1890, Dr. Boymond read a paper on the subject of aristol. As a remedy in skin diseases aristol is claimed to be an efficient substitute for iodoform and iodol. It is innoxious and odorless. The substance is obtained in the form of a brownish red precipitate, by treating a solution of iodine in iodide of potassium with thymol dissolved in caustic soda. Aristol is properly a biniodide of dithymol. It is insoluble in water, slightly soluble in alcohol, and easily so in ether. It may be applied in mixture with fatty oils, or as a powder to wounds and burns. It is not absorbed into the system, and no toxic action has ever been observed to follow its use. It is as efficacious as chrysarobin in the treatment of psoriasis; but it does not stain the skin nor produce conjunctivitis.

The following formula for aristol salve is recommended by Eichoff:

℞ Aristol . . . . . 3–10 parts;
Vaseline . . . . . 30 parts.–M.

It is well, after application of the ointment, to cover the affected parts with protective or rubber. The drug may be applied two or three times daily.

The Pneumatoscope.

An instrument, designed to render more audible the sounds produced by pulmonary percussion, was presented to the Berlin Medical Society at its meeting, held February 26, by Dr. Gabritschewsky, of Moscow. The instrument consists of two funnel-shaped cones, joined at the smaller ends. One of the openings fits over the patient's mouth and the other is provided with a diaphragm and is connected with the operator's ears by rubber tubes. The patient, during examination, is instructed to keep his mouth open and to breathe through the nose. The sound waves, produced by percussion, are, somehow or other, reproduced on the diaphragm.

Judging by the comments made by the members of the Society who spoke after Dr. Gabritschewsky, the instrument was not regarded by them as one of great value.

THE

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ISSUED EVERY SATURDAY.

CHARLES W. DULLES, M.D.,
EDITOR AND PUBLISHER.

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The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

ANTISEPSIS IN VACCINATION.

When Jenner first inoculated for the prevention of small-pox, now over one hundred years ago, the possible occurrence of dangerous or even fatal complications was recognized, and anti-vaccinationists used this fact as their strongest argument against the practice. Cases of erysipelas and septic infection have occurred only too frequently ever since. In a large number of instances these accidents have been attributed to "bad lymph." Even in these days of advanced antiseptic surgery fatal results following vaccination are not infrequently reported, while erysipelatous complications are of so frequent occurrence as to be hardly deemed worthy of record.

Antisepsis, however crude, is but rarely practiced in vaccination. In the REPORTER for May 12, 1888, attention was called to this fact, and a thorough scrubbing of the field of the operation was recommended. As a rule, the operation consists in baring of the patient's arm and immediately introducing the lymph, while, as soon as the blood dries, the sleeve is pulled down.

The possibility of septic infection being so well known, there can be no excuse for the physician failing to use strict antisepsis in vaccination, simple though the operation be. The parts should be first washed and scrubbed with a brush, using hot water and soap. This will remove all the superficial dead epidermis. The antiseptic toilet may be completed—if this seems worth while—by washing the parts with alcohol or any antiseptic solution. The lancet used should be perfectly clean. The after-treatment is of no less importance. After vaccination the abrasion should be covered with pad of boracic, or eucalyptus absorbent cotton. This will keep the limb from injury as well as prevent infection from without.

In discussing this plan of treatment in the *British Med. Journal*, Feb. 1, 1890, Mr. John Bark advises that the pad should be covered with antiseptic gauze, with the exception of its inner surface. It may be kept in place by two straps of soft half-inch tape passed around the arm, while another strap, fastened to the upper border of the pad and passing under the opposite axilla, will prevent its slipping down. Mr. Bark, however, does not apply the pad until after opening the vesicle on the eighth day, claiming that before this time, according to his own experience, septic absorption does not take place. The mother or nurse should be warned not to disturb the dressing for at least six days; when it will be found, even in cases in which there has been a large inflammatory areola, that after the removal of the pad, all inflammatory infiltration will have entirely disappeared, and, in most cases, a hard, firm scab will have replaced the vesicles.

The pad has the advantage over ordinary shields, that, besides protecting the arm

from external violence, it also absorbs all the discharge and minimizes the risk of septic absorption. Ordinary shields should not be recommended since they can be used more than once and might thus easily carry infection.

It may be argued that these precautions are not called for, and will take up too much of the physician's time. But it will be found in practice that the suggestions just given can be complied with without any serious loss of time. But even if they did take some time, any method which may accomplish the abolition of such accidents in vaccination as septic infection and erysipelas is surely worthy of trial and consideration.

ADVANCE IN MEDICAL EDUCATION.

We have recently, on several occasions, referred editorially to the marked desire for an improvement in medical education, evinced by the profession in America. The movement for an extension of the medical course of study, and for a careful preliminary education is gradually becoming general. Universities, colleges and societies from all parts of the United States are joined in this laudable work. Among the colleges that have most recently extended their courses is the Starling Medical College, of Columbus, Ohio, which has determined that three courses of medical lectures shall be required of candidates for graduation, after the session of 1890-91. The Faculty of the Hospital College of Medicine, Louisville, Ky., has adopted a rule requiring all students after the sessions of 1891 to attend three courses of lectures in separate years as a condition precedent to graduation.

Our brethren in New Jersey are working towards the same end. The Camden Medical Society has appointed a committee to urge upon the New Jersey Legislature the passage of the Kalisch Bill, providing for the establishment of a State Medical Examining Board. The profession in Rhode Island has also been aroused to activity. A bill to regulate medical practice in Rhode Island is now before the Legislature of that State. The first section of the Act provides that only registered physicians shall be allowed to practice medicine in this State, and Section 2 is as follows: "Every person in order to be a registered physician within the meaning of this Act shall be either a graduate in medicine or a practicing physician. Graduates in medicine shall be such as have obtained a diploma from a regularly incorporated school or college of medicine, and shall have presented to the State Board of Medicine satisfactory evidence of their qualifications. A practicing physician shall be deemed to be a person who for the —— years next preceding the passage of this Act has continuously practiced medicine in this State, and who shall have presented to the State Board of Medicine satisfactory evidence of his qualifications, and any other person who shall have presented to the State Board of Medicine satisfactory evidence of his qualifications to practice medicine." We sincerely trust that both the Legislature and the Governor of Rhode Island will recognize the importance of the bill and that it will speedily pass.

In Oregon a similar bill, called the Power Medical Bill, was recently passed by the Legislature of that State, but was unfortunately vetoed by the Governor, who gave as one reason, that it did not recognize sufficiently the different schools of medical practice. A new bill has now been introduced, which, it is hoped, will prove acceptable to the Governor.

The necessity for a graded course of study in any branch of science is apparent, but it is especially urgent in the study of medicine, with all its bewildering complexities, and as yet but half discerned truths. It is, therefore, appalling to estimate the number of comparatively illiterate men who, during recent years, after a few months of desultory study, and in the face of the present advanced state of the science of medicine, have attained, in colleges in this country,

legally if not meritoriously, the honorable title of "Learned in Medicine."

It is the duty of every medical organization to stimulate and endorse every effort of State or Society, directed towards the correction of the existing faults in medical education, and the furtherance of advanced methods; and now that the profession has been fully aroused to the desirability both of an extended course of study and of a preliminary training, the establishment of both should be striven for in every city and State.

We trust that ere long this will be the case, and also that every State shall have a competent medical examining board, and that the medical profession in the United States will be elevated to its legitimate position. It will always be the policy of the REPORTER to give this most important subject prominence, and to report to its readers every advance made in this direction.

PUNCTURE OF THE INTESTINE FOR OCCLUSION.

At the last meeting of the French College of Surgeons, Professor Demons, of Bordeaux, advocated the practice of making punctures into the intestine in the treatment of chronic occlusion of the bowel, and deprecated the unmerited disuse—as he thinks it—into which this method has fallen. Among the advantages which he claims for it, is the fact that after relieving the bowel of the gas which has inflated it, it is often possible—on account of the flaccid condition of the belly-wall—to determine the cause of the occlusion and to institute intelligently some other procedure to overcome or remove it. Professor Demons speaks of the operation of puncture as being only a palliative measure, and yet he reports six cases in which it was followed by permanent relief of the condition of obstruction. One of the most striking features of his communication was the statement that he has never seen any ill-effect to follow the making of punctures in the bowel; while in the most unsatisfactory cases it gave at least temporary relief to the patient.

These opinions of Professor Demons were published in the French medical journals as long ago as last October; but they do not seem to have attracted the attention which they deserve. He speaks of a sort of revival of the method in England; but this is somewhat of euphemism; for in England, as in this country, most surgeons regard such a procedure as in the highest degree dangerous. There and here, we believe, there is hardly a surgeon who would consider it justifiable to puncture the intestines except in extreme cases, and in the face of impending death from suffocation caused by pressure of inflated intestines upon the diaphragm.

Nevertheless, it may be that there is something to be said in favor of aspirating the intestines, and that this is not so dangerous as most surgeons think. There are times when the relief furnished by such a procedure may be of the greatest advantage. Not long ago, in Philadelphia, a woman, dying in consequence of a fracture in the cervical portion of the spinal column, who was being suffocated in consequence of the accumulation of gas in the intestines, was relieved by means of puncturing the intestine with a fine aspirating needle sufficiently and for a long enough time to make a will. In another case a patient dying of peritonitis was relieved so much as to encourage the belief that the operation had proved of great service in lessening the discomforts of his inevitable death.

In cases of this sort we believe that puncturing the intestines is a measure which ought to be resorted to, and can believe that in some cases it may prove of more than temporary utility. Certainly the very strong and positive statements of Professor Demons suggest that there may be too much dread in the minds of surgeons in regard to this procedure, and that it may have a field of usefulness which warrants a more general consideration than it has heretofore enjoyed.

ESSENCE OF CINNAMON AND TYPHOID FEVER.

The newspapers of April 19, 1890, report, under the heading, "Highly Important, if True," that a discovery of vital importance has just been made by Dr. Chamberland, Pasteur's assistant, and Drs. Mennier and Cadéac, which proves that essence of cinnamon, when sprinkled in the rooms of a typhoid fever patient, kills the bacteria within twelve hours and prevents the disease from spreading.

This curious item may have originated at Pasteur's laboratory; for many strange things have come from that source; but it would probably be unjust to charge it with one which displays so many different marks of ignorance as this one in regard to typhoid fever does.

BOOK REVIEWS.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the REPORTER.]

ANÆSTHETICS, ANCIENT AND MODERN: Their physiological action, therapeutic use and mode of administration; together with an historical *resume* of the introduction of modern anæsthetics—nitrous oxide, ether, chloroform and cocaine; and also an account of the more celebrated anæsthetics in use from the earliest time to the discovery of nitrous oxide. BY GEORGE FOY, F. R. C. S., Fellow of the Royal Academy of Medicine in Ireland, etc. 8vo, pp. 175. London: Ballière, Tindall & Cox, 1889.

The greater part of this volume has appeared in the shape of monthly contributions to the *Dublin Journal of Medical Science*, during the years 1888 and 1889. The author states in his preface that his object in undertaking the work was not to rob the men of the present day of discoveries rightfully theirs, but to give credit, where credit is due, to the ancients. He has endeavored to bring from the relics of the almost forgotten past whatever may tell of the gradual evolution of the anæsthetics of to-day from the first crude attempts of ancient medical men to find a suitable analgesic. Mr. Foy divides the history of anæsthetics into three periods: First, the period of crude drugs, which lasted until the discovery of distillation, and was associated with superstition often of a gross character; second, the period of distilled products, which lasted until the isolation of oxygen; from which event may be dated, third, that of the inception of the discovery of modern anæsthetics.

The history of the use of various agents to relieve pain, as related by Mr. Foy, is extremely interesting. It is evident that the ancients were familiar with mandragora, opium, and cannabis Indica, and perhaps they actually used, in some instances, anæsthetic gases. The story of chloroform and ether is more familiar to most persons. Americans will be glad to know that full credit is given them for the discoveries of Guthrie and Jackson. Regarding the safety of chloroform, even in patients with heart disease, the author quotes Dr. Lawrie's opinions concerning the experiments performed by the Hyderabad commission, and also quotes freely from our countrymen, Drs. Hunter McGuire and Chisolm. Throughout the book he shows an appreciative familiarity with the contributions of American writers. Some useful general rules for the administration of anæsthetics are given in Chapter XIV.

Dr. Foy has made an interesting collection of historical references to anæsthetics, and has grouped together some valuable observations on the more important of them now in use. The book is written in a pleasing style, and a manifest spirit of fairness pervades it. Altogether the book is instructive, and it fulfils a useful purpose.

A HAND-BOOK OF DISEASES OF WOMEN, INCLUDING DISEASES OF THE BLADDER AND URETHRA. BY DR. F. WINCKEL, Professor of Gynecology, and Director of the Royal University Clinic for Women in Munich. Authorized Translation. Edited by Theophilus Parvin, M. D., Professor of Obstetrics and Diseases of Women and Children, in Jefferson Medical College, Philadelphia. Second Edition, Revised and Enlarged, with 150 Illustrations. 8vo, pp. 756. Philadelphia: P. Blackiston, Son & Co., 1889. Price, $3.00.

The character of Winckel's Hand-book of Diseases of Women is so well known as not to need extensive notice. The author is a recognized authority, and a man of great learning, wide experience and conservative judgment. The book is what we should expect from such an author.

The present edition contains a section upon the diseases of the bladder and urethra in women, derived chiefly from Winckel's monograph upon that subject.

As placing before English readers the views of Winckel, the Editor and Publishers are to be congratulated for issuing the work. But the student and practitioner must bear in mind that the opinions expressed are not recent, and that in the sections devoted to subjects in which rapid advances have been made, the accepted teachings of to-day are not set forth. This refers more especially to the sections devoted to pelvic inflammation and abdominal surgery.

It gives us great pleasure to add that this fact is frankly stated in the Editor's preface. The thoroughly scientific character of the work gives it such value that it will be an addition to any library.

CORRESPONDENCE.

Pseudo-encephalic Monster.

TO THE EDITOR.

Sir: In the REPORTER of Jan. 18, 1890, appears an article entitled "Pseudo-cephloid Infant," the description tallying so closely to my experience that I have decided to put it in print for the benefit of my brothers who are just commencing to practice.

In August, 1887, I was called to my first case of confinement. The patient was Mrs. B., 35 years old. She had before given birth to five well-formed children, all of

whom were living at the time, the family generally in the best of health. I took my seat beside the mother, asking many questions, and learned from her that she had but little trouble in her previous confinements. I felt quite encouraged, as I had not made an examination. After a few minutes the mother complained very much of the movements of the child, they being very strong and spasmodic—more so than usual, as she never had experienced such movements in her previous confinements. I made an examination and found, as I thought, the vertex presenting; but at the same time I felt a mass of substance that I could not make out. I kept my own counsel, only assuring the mother that the head was presenting, and that everything would be over in a short time. It seemed to me that my hair was standing on end, and the chills began to creep up and down my spine, and I thought of a hundred different things that had been taught by the professors of obstetrics. But none of them seemed to fit this case. I felt backward in making the second examination for fear of the mother's reproach, should I tell her some other part was presenting, and that the labor might be tedious, or that instruments might be required. I put on a wise look, and made the second examination; but found no progress. The pains were now few and weak, but the mother seemed to be in the best of spirits. I waited thirty minutes. Labor at the time seemed stimulated, and I made my third examination. The head had come down, allowing me to make a good examination. Again I came in contact with the peculiar mass, and the chills resumed their movement up and down my back. After considerable manipulation I could feel sharp edges of bone surrounding the mass; and the puzzle seemed to deepen. Further examination brought the depression of the root of the nose and eye within reach of my finger, and then I was sure the head was presenting; and I felt greatly relieved. But what to think of the soft mass was still a mystery to me.

After several hard labor pains a male child, well formed except as to the head, was born. It weighed eight pounds. Respiration was established immediately; and the pulsation was good. The child made several peculiar sounds, but could not nurse, and lived only eighteen hours.

The frontal, the parietal, and the squamous portion of the temporal bones were absent. The eyes remained open. The soft mass was of a dark red color, resembling liver. It was covered with a dense membrane, dipping down and dividing the mass into five distinct sacs, which were filled with fluid. No brain substance could be distinguished. The child was carried to full term. I was not allowed to make a minute examination, and a fuller description of the mass cannot be given. To say I felt relieved at the easy termination of the labor is putting the matter very mildly.

Yours truly,

B. F. Harding, M. D.

Crestline, Ohio.

Strange Remedies.

To the Editor.

Sir: A Mr. Haw, writing from South Africa to the London *Lancet*, describes some of the remedies relied on by the people of Transvaal. They are not new to me or original with that people. Twenty years ago I began practice near the foot of Lake Champlain, and most of the remedies mentioned were in vogue there. They are survivals of medicine handed down from their common Dutch ancestors. Many of these old absurdities may still be found in America among the descendants of any European nationality.

Cow-dung poultice, which he mentions, is in very common use. Turning to Salmon's *London Pharmacopœia* of 1620, I find it there quoted as a standard remedy, not only for external but also for internal use. He gives a formula for *Tinctura Sterci Bovis*. "It is of a cleansing faculty, temperate in quality and a great Anodyne. Good against all diseases." Several preparations follow: one of which is *Hedychrum*, "Perfume of cow-dung, gathered in May, June or July and distilled. Cooling, discussive, carminative."

He speaks of a young goat killed and immediately opened, into which a child is put. He does not mention for what disease, presumably for pneumonia, as I have seen it done, except that it was into a sheep instead of a goat. For peritonitis a common remedy is to cut open a live black hen and apply it to the abdomen. For sprain, the warm entrails of a sheep or hog.

Eel-skin strings or strips he mentions as used for rheumatism. I have seen many men wearing these strips about their wrists and ankles for stiffness there. It is a com-

mon practice in the by-ways of New England to tie a hank of flax or a skein of linen thread around the waist of a child having mumps "to prevent them from going down." I do not find this in Salmon.

Mr. Haw saw them use the finely chopped hairs of a black cat that had no trace of white on it, mixed with sugar, for convulsions. I have known this to have been given for worms, and also found a patient's breast that threatened to suppurate covered with an ointment made with the hairs and lard.

The blood from the black cat is often applied as a remedy for shingles.

This is in the old *Pharmacopœia:*

"Fowl-poultice for snake bite." It was commonly used for dog or cat bite. In Salmon's *Dispensatory* it is written, "the Anus of a live Fowl applyed to a Bubo draws out the Poyson, by its attractive quality." For jaundice, scoop out a carrot, fill it with the urine of the patient and hang it against the back of the chimney. When the urine evaporates, the person recovers. I was called to see a patient for which the remedy had failed. The old lady said it was useless, unless done in the dark of the moon.

Children still practice counting warts to make them disappear; but I had supposed hanging them in effigy was original with my community. I have seen the chimney-back many a time decorated with a rude drawing of a gallows with ropes dangling and knotted ends to represent the warts. When the smoke effaced this the warts disappeared.

For wounds made by a nail or splinter, to wrap the implement in a soft cloth and to lay it in a warm place, is a common practice. Last summer I saw the village farrier carefully wash a horse's wound, made by a barbed-wire fence, then lay in it two small sticks cut from a sweet apple tree; these he then wrapped in a paper and placed them carefully over the kitchen stove. No other treatment was given to the ugly wound. He said he had practiced this for forty years, sometimes on men, and had never failed of a successful cure. It was a queer reminder of the sympathetic powder of Sir Kenelm Digby, with which the sword was anointed and carefully dressed for the cure of the wound. King James I gave him a large reward for it (1658).

There are many new things under the sun nowadays, but there are many of the old things surviving. Yours truly,

P. J. F.

Clinton, Iowa.

Notes and Comments.

The Commitment of the Insane to Asylums and Hospitals.

At a meeting of the New York Neurological Society, held February 4, 1890, a committee, appointed at the preceding meeting to examine the proposed new lunacy law, known as the Gallup Bill, reported that the measure has a large number of very excellent features, which, if they should become law, would prove of the highest advantage to the unfortunates whom they are intended to benefit. These are the sections relating to:

1. The removal of the insane to asylums by attendants of the same sex.
2. The admission and discharge of voluntary patients.
3. The admission of emergency cases without papers of any kind for three days.
4. The forbidding of the confinement of insane persons in jails in the same room with criminals, and any detention beyond ten days.
5. The provision of home visits of indefinite duration at the discretion of the medical officers of the asylums.
6. The boarding-out of suitable chronic lunatics in private families, at county expense, according to the systems in vogue in Scotland and Massachusetts.

Aside from the invaluable particulars just described, there are several sections relating to commitment to which there would seem to be serious objections.

According to the present law, the family physician calls in another physician. Together they make out two medical certificates and swear to them before a notary. (This is all sufficient for admission to the asylum for five days.) A judge of a court of record must write his name and the word "approved" on the back of the certificates to make them valid beyond the five days. The papers must not be over ten days old when the patient is admitted.

According to the proposed law, the family physician makes out a formal paper notifying a judge, justice of the peace or superintendent of the poor that a patient of his is insane and a proper subject for an asylum. The official thus notified fills out two blank forms directing two physicians to examine the patient. The physicians make out two medical certificates, which are returned to said official. If the officer notified be a justice of the peace or superintendent of the

poor, he must himself also visit the patient and satisfy himself as to his insanity, after receiving the certificates of the physicians. He then makes out himself a corroborating certificate, and presents the three certificates to a judge of a court of record. The judge then sends notice to the patient of the proceedings, makes out an order committing him to the asylum, and finally issues a warrant to the asylum superintendent to send for the patient, or to a county official to remove him thither. The judge must also cause copies of the medical papers to be filed in the office of the county clerk; and he must furthermore take proof as to the estate of the patient, filing another certificate as to these facts with the county clerk. The process is only completed after a formal paper has been made out by the asylum superintendent to the judge committing the patient, notifying him of the admission of the case. The judge must cause this paper also to be filed with the other papers in the office of the county clerk.

At present two papers only are necessary for the commitment of a patient to a hospital for the insane. According to the law proposed thirteen papers will be required; and simplified as much as possible by avoiding the lower officers and applying directly to the judge of a court of record, twelve papers, according to forms prescribed in the bill must be made out before the legal process is accomplished.

The objections to this form of procedure are:

1. It is unnecessarily complicated.

2. The position of Examiner in Lunacy will be degraded to a reward for political labors.

3. Patients will suffer harm from the visitation of two strange physicians, of the county official or judge, and of an officer of the court with a notification of the legal proccedings about to be instituted.

The committee says that, simple in comparison as is the existing law of commitment, no person has ever been, through intentional wrong-doing, placed in an asylum as insane in New York State. But it is possible to make certain improvements in the law now in force, not only in the manner of commitment, but also in the means of regaining subsequent liberty; and the committee submitted the following suggestions:

1. There should be no material change in the present mode of commitment by two medical certificates, sworn to, and approved by a judge of a court of record, as provided in the Laws of 1874.

2. Emergency cases should be received for three days without papers of any kind, as specified in the proposed new law.

3. The medical certificates should be more carefully and thoroughly made out, not only in justice to the patient, but also for the benefit of the asylum physicians, who now rarely receive many facts bearing upon the medical history of their patients or upon their mental condition. To this end the form prescribed in the Gallup Bill should be adopted. A few additional questions should be incorporated in the medical certificate for the purpose of determining whether the physicians have informed the patient of their intention of placing him in a hospital for the insane for treatment, in order to guard against the serious harm so often done to patients by removing them to an institution through deception. The State Commission in Lunacy seems to be invested with the power to prescribe the form in which the medical certificate should be made out, and a law regulating this would not appear to be necessary.

4. There should be a section in the law permitting any higher justice, upon application from any patient in an asylum, to appoint at his discretion a commission of two or three physicians to quietly examine said patient as to his mental condition, and upon receiving their report favorable thereto, to discharge him from the custody of the asylum.

5. A clause should be introduced into the bill providing that nothing in the lunacy laws of the State shall be construed to interfere with the reception and treatment of acute cases of insanity in chartered general hospitals, in the same manner and under the same conditions as patients suffering from other diseases are there received and treated, provided such hospitals have suitable accommodations approved by the State Commission in Lunacy.

Diphtheria—its Treatment.

In the *North Carolina Med. Journal* for March, 1890, Dr. E. B. Goelet, of Saluda, N. C., has an excellent practical paper on diphtheria, in which he says:

The symptoms vary from simple sore throat to complete constitutional prostration. Usually there is, at first, a malaise or tired feel-

ing, with loss of appetite; next the throat becomes sore, and there is languidness with fever; then the eyes get dull, showing constitutional depression and feebleness; the tonsils are only slightly enlarged out of proportion to the constitutional symptoms; then appears a general redness of the palate, pharynx and tonsils, with dusky reddened blotches and white or ash-colored spots, spreading rapidly and developing in glandular enlargements; the inflamed surface exudes false membranes containing micrococci, which inoculates all other surfaces in contact therewith; and finally the disease expresses itself anywhere on the body there is an abrasion. If let alone the tendency is to death by suffocation, on account of the spread and rapid growth of these false membranes. The involved cervical glands increase enormously. Blood-clots may form and attach themselves to the valves of the heart, then be swept off as emboli.

In tonsillitis there is a sharp attack of fever, high temperature and enlarged tonsils, with no history of malaise, the eyes are bright, there is no languor or prostration, the swelling and redness confined to the tonsils.

In follicular tonsillitis there is no fever, no constitutional depression, but very enlarged tonsils on both sides, covered with patches in the depressions of the tonsils, but these patches are superficial and easily removed; in a day or two, under proper treatment, the patches reduce in size and soon disappear.

In scarlet fever the symptoms resemble diphtheria, but the eruption appears in the first twenty-four hours, the throat symptoms come on later, and the redness is scarlet and diffused.

In diphtheria the fever is slight, of low grade, resembling an asthenic type, the eyes are dull, and there is constitutional depression, simple enlargement of the tonsils, inflamed palate and pharynx, with whitish spots or patches appearing upon a reddened base, the spots are adherent and apt to cause a flow of blood when removed, there may be an eruption, but that comes on later; the early symptoms are confined to the throat, the patches spread rapidly and inoculate all surfaces in contact with them.

The treatment should be based upon constitutional theory. A proper germ poison put into the blood will arrest its development and destroy the membrane. Sulphur and chlorine are the most potent germicides known. Now we want to get sulphurous acid into the blood; and, in order to do so, we give the sulphite of sodium. It will not hurt the patient, but will destroy the germ and be excreted by the kidneys as a sulphate. From twenty to thirty grains taken every two hours will keep up a continuous action; large doses act as a purgative, but do no harm. As a local application, use chlorine water. I usually generate it in this way: Take chlorate of potash, ʒij; and hydrochloric acid, [The writer probably meant to say *sulphuric* acid. Ed. Reporter.] ɱxx; put into a well-stoppered eight-ounce vial, and when decomposition has taken place, add through a glass funnel, glycerine fʒii, to absorb the chlorine; then add water to fill the vial. Use this as a gargle, and it will clean off the membrane as a wet sponge does a slate. It can be even given in doses of fʒi every three hours. As a prophylactic, I prefer the sulphite of sodium; for chlorine is a powerful cardiac stimulant and diuretic, and is best suited to severe cases. I have had a number of cases this fall and winter and have lost only one.

I have a firm conviction that, if called to see the patient in time, with this treatment there should be no fear as to the result.

Absence of Malaria on the Eastern Shore of Maryland.

In a pamphlet on the Climate of the Eastern Shore of Maryland, Dr. C. W. Chancellor, Secretary of the Maryland State Board of Health, says that for a long time the Eastern Shore of Maryland has rested under a reputation such as is likely to arise from a careless observation of her physical constitution and relations; but the light of investigation and experience has in a measure dispelled this belief.

The salubrity of any particular locality cannot always be exactly interpreted from local conditions, or a mere string of figures be said to represent meteorological phenomena. They are, however, very valuable in conjunction with other knowledge; and any information obtained from intelligent physicians and other persons who have lived long in a place, as to its general salubrity is valuable in forming a judgment of the healthfulness or unhealthfulness of a locality. He has gathered as much of such knowledge as possible in regard to the salubrity of the Eastern Shore. Reports from a considerable number of local health officers, physicians

and correspondents show that, whatever may have been the condition of this section of the State, as regards malarial and other diseases, in former years, it is now exceptionally healthy—in fact it is more exempt from disease than any other district in the State of equal area and population. This is especially true in respect to malarial fevers and pulmonary consumption.

The facts which have been obtained indicate that malarial diseases have greatly diminished on the Peninsula in the past ten or fifteen years, and that, exclusive of small areas affected by local conditions, the proportion of uncomplicated malarial fevers to all other cases of disease is not more than *two per cent.* This great reduction in the number of cases has been secured through a better knowledge of how to avoid the causes of disease, rather from any system of medication ; and it is hoped that, by further application of well-known sanitary laws, intermittent and remittent fevers will be banished from the list of prevailing diseases on the Eastern Shore of Maryland.

The Dispensing of Digitalin.

The Paris correspondent of the *Chemist and Druggist* reports on a discussion on digitalin recently held at a meeting of the Paris Société de Pharmacie, as follows:

M. Petit called attention to the vexed question of digitalin, or rather digitalins. As regards crystallized digitalin there is no difficulty when it is prescribed as such. The dose is one-tenth of a milligramme, and it makes but little difference whether Nativelle's or the German crystalline principle (by them called "digitoxin") or any other be employed. But the trouble is with amorphous digitalins. According to law it is this sort that should be dispensed when no remark is make by the prescriber, and the preparations offered in the market as amorphous digitalins are exceedingly variable in strength. Some, such as the Codex article, which are completely soluble in chloroform, are considered by good authorities nearly equal to the crystallized principle; but others must be much weaker, since they are taken in 1-mg. doses, which would be sure death with the pure product. As to the German sorts offered, they are of all varieties and prices, from less than 1 franc or 3 francs a gramme, not to speak of the so-called digitoxin. In consequence of this great variation, M. Petit moved that a commission be appointed on the question, so as to arrive at some agreement in regard to uniform practice in dispensing digitalin. The motion was unanimously concurred in, and MM. Petit, Marty, Wurtz and Delpech appointed a committee to consider the matter and report.—*American Druggist,* April, 1890.

Curability of Hydrophobia.

In the data collected by Dr. Lucas Benham, and published in the *Lancet,* March 1, 8 and 15, 1890, there is a fair amount of the evidence that hydrophobia may be successfully treated. This evidence does not, however, afford much satisfaction, inasmuch as the cases on which most reliance has been placed—those, namely, where bleeding and salivation have been freely employed—are derived from the records of the early part of this century. In many of the narratives supplied by Dr. Benham there is a candid confession respecting the doubtfully rabid condition of the animal that inflicted the bite. In others the symptoms seem to be exaggerated. Dr. Benham's candor and impartiality are to be commended.

Pitjecor.

Pitjecor is the name given by Dr. Luigi Casati to a preparation of cod-liver oil and catramin. It is free from fat, but not emulsified. It is said to be of special value in chronic affections of the lungs, particularly in tuberculosis. Catramin (a preparation made from pix liquida) is said to act directly upon the tubercle bacillus. The results obtained by Dr. Casati with the preparation were most encouraging.—*Wiener med. Presse,* Feb, 23, 1890.

Hydrophobia in Paris. Pasteur Institute Statistics.

The *Bulletin Médical,* March 26, 1890, reports that in the year 1889 there were treated at the Pasteur Institute 236 persons from the Department of the Seine (Paris) alone, supposed to have been bitten by rabid dogs. Of these persons three died after treatment. During the same period three other persons died of hydrophobia in Paris.

NEWS.

—Dr. Robert Coltman, of Chinanfu, China, on April 1, 1890, assumed charge of the Teng Chow Fu Hospital.

—The Board of Charities and Correction, of Philadelphia, on April 16, elected Dr. J. M. Barton, surgeon to the Philadelphia Hospital in place of Dr. Henry R. Wharton, resigned; and Dr. C. Jay Seltzer was elected laryngologist.

—The Medical Society of the Missouri Valley held its regular quarterly meeting in St. Joseph, March 20 and 22. The Society was organized over a year ago at Council Bluffs, Ia., and now has a membership of over two hundred.

—A professor in the University of Klausenburg claims to have compounded a solution which completely neutralizes the poison introduced into the system by the bite of a mad dog. This solution consists of chlorine water, salt brine, sulphurous acid, permanganate of potassium and eucalyptus oil.

—The sixty-ninth annual commencement of the Philadelphia College of Pharmacy took place April 17. The valedictory address was delivered by Professor Joseph P. Remington, Ph. M. Among the graduates were five women, two of whom did not receive their diplomas, being under twenty-one years of age.

—It is reported that two families, consisting of sixteen persons, were poisoned last week in Franklin County, Arkansas, by eating wild turkey, and twelve of them, up to the last accounts, were not expected to survive. It is believed that shortly before being shot the turkey ate some strychnine bait which had been set for wolves.

—A dairyman of Chester County, Pa., has complained to the health authorities of Philadelphia about the filthy condition in which milk cans were sent back to the dairies. He stated that very frequently these cans are allowed to stand for weeks with milk decaying in them and breeding impurities which decomposed animal matter is subject to.

—Professor Ulysse Trélat, the distinguished French surgeon, died March 28. For many years past Dr. Trélat had been Professor of Clinical Surgery in the Academy of Medicine, of Paris. He was sixty-two years of age. He took his degree in 1854. Military honors were rendered the deceased at his funeral and several orations were pronounced over his grave.

—The New York Pasteur Institute was opened on February 18, and from that date to March 31 thirty people applied for relief. Of these 9 were treated, and are at present in good health. In 3 cases hydrophobia was assumed to exist from the results of inoculation of other animals with the spinal cord of the rabid dogs. Four of the patients were from New York City, 3 from Long Island, and 1 each from Maryland and Arkansas.

—The following medical commencements have been held recently:—Fort Wayne Medical College, March 11, 7 graduates; Beaumont Medical College, March 20, 23 graduates; Central College of Physicians and Surgeons, Indiana, 8 graduates; Medical College of Indiana, 28 graduates; Western Reserve University, Cleveland, O., March 5, 30 graduates; Atlantic Medical College, 51 graduates; Southern Medical College, March 5, 33 graduates.

—The National Academy of Sciences, in Washington, on April 18 elected as members of the Academy, George L. Goodale, Professor of Botany in Harvard College; Russell H. Chittenden, Professor of Chemistry in Yale College; Richard M. Smith, Professor of Political Economy in Columbia College, New York, and General Thomas L. Casey, Chief of Engineers, U. S. A. One vacancy remains unfilled, it having been found impossible to agree upon the persons most worthy to be honored.

—The druggists of Baltimore have been much exercised over the provisions of the new Liquor License law. A largely attended meeting was held April 17, to discuss the new law. The law was characterized as absurd, and it was stated that if it were enforced literally, the druggist would be legislated out of business. A committee was appointed to consult with the State's Attorney, and get a written statement of the construction the druggists are to put upon the law, and the extent to which their business as now conducted will be affected by it.

—Twenty-two physicians who were employed on the summer vaccinating corps by the Brooklyn Health Commissioner, and who have not been paid for their services, have employed lawyers and had claims filed preparatory to suing the city. They have not been paid because the Civil Service Commission said they were irregularly employed. Commissioner Griffin employed them in an emergency, believing that he had full power to do so. There is no question as to the performance of the work charged for. The amount of the claim in each case is $120.

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CLINICAL LECTURES.

INFLUENZA AND PERIMETRITIS.—SYMPTOMS OF PREGNANCY.—BEGINNING OF MENOPAUSE.—STERILITY FROM A MISCARRIAGE.

BY DANIEL T. NELSON, A. M., M. D.,

PROFESSOR OF CLINICAL GYNECOLOGY IN RUSH MEDICAL COLLEGE, CHICAGO, ILLINOIS.

Gentlemen: We have before us to-day four cases, characteristic of what you are likely to find in your offices after you have been practicing medicine for some time. The first thing you do is to find out the cause and nature of the trouble in each case; its extent, what to do, and what not to do; and the latter is sometimes most important as regards treatment, in so far as the relation of other diseases to pelvic disorders are concerned.

Influenza and Perimetritis.

Here, for instance, is a young woman who came to the clinic for the first time four years ago. She was 18 years old at puberty, and is now 28 years old and of Swedish parentage. She complains of pain in the limbs, pain in passing water, and a leucorrhœal discharge, which has increased of late; her bowels are irregular; her appetite poor; she is very nervous; she sometimes sleeps well, sometimes poorly; her menses are irregular, occurring sometimes as often as every two weeks, and are small in quantity and light in color; she has a good deal of pain at the time of menstruation. She suffers from abundant leucorrhœal discharge at present, but, she says, the discharge is usually not very large in amount, and is not constantly present.

She has been troubled also with influenza for about two weeks, having pains all over her body. We do not know what her condition was exactly at the time of the attack,

but there is no doubt but that she had the influenza. In this prevailing epidemic of influenza some patients are suffering from diarrhœa and stomach disturbance; others from constipation, loss of appetite, chills and fever, with slight alimentary disturbance; and still others from pains of a neuralgic character in the bones, muscles and limbs—with a stiffness as though they were suffering from muscular rheumatism, etc. It is not our purpose to deal so much with her last illness as the other troubles of which she complains.

A pelvic examination has been made, and no local treatment resorted to. Why? What is the condition of things found? Increased tenderness about the uterus, left perimetritis, the left ovary and tube being involved in inflammation. On making further examination with the speculum, we find a considerable leuchorrhœal discharge in the vagina. There is tenderness on the right side of the abdomen, but it is chiefly confined to the left.

What shall be done with this type of case so far as the pelvic disease is concerned? For the present we should continue to improve her general health as much as possible. In a single word, do not give much attention to the local disorders in the pelvis so long as there is a general or constitutional disease which is making considerable disturbance; so long as there is an increased temperature, considerable pain in various parts of the body, or chills and fever. The simplest local treatment has therefore been prescribed for her—hot water douches, containing borax, or some simple astringent or antiseptic. Borax, however, is likely to do as much good and as little harm as anything that can be used. The hot douches are given at night; after which she can go directly to bed and not expose herself to the changes of temperature which might aggravate the local disease. She should not expose herself after the use of these local baths. In taking any hot bath great care is required afterwards that there shall not be some acute disturbance set up by the process which we call "taking cold." She is directed to have hot applications across the abdomen if there be considerable pain. Later, stimulating applications will be of advantage, such as tincture of iodine, croton oil, cantharides, etc. If she still needs further treatment, it shall be discussed at some future time. When you have an acute disorder of a general character, such as influenza, typhoid fever, pneumonia or other acute disease, it is a good rule to let the local disease go until the general affection has subsided or nearly so.

Again, acute diseases are likely to leave an existing chronic one worse for a time. If she had been vomiting, and having diarrhœa. and if there had been considerable disturbance in the alimentary canal, the mechanical effect of the vomiting and diarrhœa in disturbing the viscera would aggravate the pelvic disease if there were no other reason for it.

Symptoms of Pregnancy.

The next patient I bring before you was 17 years old at puberty, and is now 29 years old; she is of German parentage, has been married five months and has had no miscarriage. Her present illness began four years ago. She was in the Cook County Hospital a year ago, and remained there for three months. She has headache in the morning, at about ten o'clock, which continues for several hours, and then relief comes. It comes on again in the evening at nine o'clock. She feels sick at the stomach before breakfast, and vomits. She suffers from pain in the back, chest and stomach. Her appetite is fair; she does not sleep well; she has burning pains during urination; her urine is of a darker, yellow color than it ordinarily is. While in the County Hospital she had an operation performed upon the perineum and cervix, and since that time she has been much better than before the operation, and the operation certainly was satisfactory in its results, inasmuch as both the cervix and perineum look as though they are in a normal condition. She had a child some four years ago. Her bowels are constipated, and she is obliged to be constantly using injections, or some other means, to move them; she breathes rapidly, especially after exertion, as in climbing stairs; her pulse is 100, and somewhat nervous in character. Her menses stopped eight weeks ago.

Local examination shows the uterus to be slightly enlarged, but not sufficiently so to make a positive diagnosis of pregnancy. Examination with speculum gives suspicious evidence of pregnancy, viz., a blue congested condition of the cervix. While that frequently accompanies pregnancy, it is not by any means a positive proof of it. If you have an arterial or pinkish congestion you may readily be suspicious of pregnancy. If

it is a blue or venous congestion, while it may belong to pregnancy, it may be due to other conditions, one being simply stasis, and the other a greater amount of activity, and the coloration may not be marked in some cases as in others. A fibroid tumor will produce the same venous congestion. If you know there is no tumor present and the venous congestion comes on, and it is near the menstrual period, menstruation will give you venous rather than arterial congestion. There is such a commingling of colors in pregnancy and in the approach of menstruation that you cannot always be sure whether it is the menses approaching, or whether it is pregnancy that has already commenced. In a case like this you may be reasonably certain that it is pregnancy.

On examining the breasts, we see the same evidence of congestive activity. We find them somewhat enlarged, yet they are not as large and as sensitive with increased glandular activity as is found in some cases. The sebaceous glands in the areolæ about the nipples are considerably enlarged. There seems, also, to be an unusual activity going on in the pelvic viscera. We find that the arteries are larger and are pulsating with greater force than in a normal condition of the pelvis, without pregnancy; though this of course will occur in the pelvic inflammations, in malignant diseases, fibroid tumors, and many other forms of pelvic disease. The arterial congestion to my mind is of more importance as rendering pregnancy suspicious than almost any other symptom. While the uterus is enlarged, it has not changed its form so materially as it does sometimes to make a positive diagnosis of pregnancy from its shape. With the finger passed behind the cervix, it seems to have its ordinary contour as far as the vagina can be crowded backward. Carrying the finger upward, as you go forward, there is a greater rapidity in the elevation of the walls of the uterus than usual. In other words, there seems to be an enlargement on one side (the anterior). It is not a flexion, because if so, both sides would be parallel. The uterus keeps its contour, it does not run up as rapidly as in flexion. We have the same appearance in front in the anteflexed uterus as compared with the pregnant uterus, with the ovum upon the anterior wall. If it were on the posterior wall, then you would have a reversion of this nodular appearance over the enlarged tumor-like projection. If the ovum is attached in other regions you may not get it as marked. The ovum here is implanted directly in front. I do not find the enlargement as prominent in her case as in many cases. This blue discoloration may extend also to the vagina, to the whole vulva, and to the region about the urinary meatus, and, as a rule, is much more prominent in women who have borne several children than in those that have not; or, in other words, in those who have varicose veins. Several authorities have noticed that this blue congestion about the genitals is indicative and suspicious of pregnancy, but I think that the arterial congestion is more significant than the venous congestion.

Of course, I may say in passing, that we have passed no sound into the uterus in this patient supposed to be pregnant. We have given her laxatives and told her to return from time to time that we might watch her. We advised her also to drink hot water to facilitate passing the urine freely, making it lighter in color, and therefore less irritating.

Here is perhaps an explanation of the teasing bladder: the congested uterus presses upon the bladder, and mechanically disturbs it; and perhaps not alone mechanically, for a disturbance is going on in all the pelvic organs, and this irritation or disturbance of the bladder is one of the common symptoms of the commencement of pregnancy. Under such circumstances it is best to examine the urine and see whether there is disease of the kidney, whether there is something wrong with the interior of the bladder that is causing the cystic disorder, or, what is more likely, if there is something in the uterus and adjacent organs which is teasing the bladder.

This condition demands but very little treatment in so far as the discomforts of the bladder are concerned.

For the neuralgia returning periodically at about the same time morning and evening, I would give quinine in full doses (15 to 20 grs. in twenty-four hours, in divided doses), given in the intervals of the pain, and during the pain I would give antifebrin in five-grain doses every two to three hours, for immediate relief. When there are indications for quinine, I do not hesitate to give it in full doses during pregnancy, unless it disturbs the stomach.

Beginning of Menopause.

Let me now read the history of our next patient, an elderly woman sitting on my

right, as illustrating the venous congestion that I have been talking about in the other case, though in a different way.

Mrs. J., 16 years old at puberty, now 49, of Irish birth, married 30 years, has had ten children, the oldest being 28 years of age, and youngest ten years. She had one miscarriage, eighteen years ago, occurring at the third month of pregnancy. You notice that she had her last child ten years ago, being eight years after the miscarriage, so that the bad effects, if there were any, from the miscarriage are likely to have been removed by her subsequent pregnancy. She did not have enough trouble from the miscarriage to produce sterility.

She complains of a burning pain in the womb. There is flatulency or bloating of the abdomen. She cannot sleep on account of pain in the top of the head. She has pain also in the neck and back. You notice that the complaints of patients suffering from uterine disorders of one type or another, are often accompanied by a pain in the top of the head.

The patient feels hot, never cold. Many complain of a cold spot on the top of the head or under the shoulder blade, where there is always pain. This patient, also, has a burning pain in passing water, and pain in the small of the back. Her feet swell; she is very nervous; she sleeps poorly, but her appetite is fair. She has not had her monthly sickness for four months. She has a thick, white leucorrhœal discharge, large in amount, but it has not been constant recently.

Now, what is this case? Is it one of pregnancy like the other, or not? Is the menopause approaching? Let us examine the pelvis and see what we find there. The cervix and perineum are lacerated, and the vagina is very flabby. You are not surprised at this condition of things when you know that she has borne ten children. Her largest child at birth weighed 14 pounds. Is it strange that she has a large vagina, a large vulva, a torn cervix and a lacerated perineum? That she has not suffered more than she has is strange. What do we find besides a lacerated perineum and cervix? On examination we find that both of these lacerations have fairly well healed, and it is not likely that she will need an operation to restore the parts to their normal condition.

The uterus seems to be in its place, and is growing smaller and lighter. It is not as heavy as we would expect to find it in a woman who has borne so many children. The mouth of the womb is flabby; in other words, the uterus is getting smaller, the cervix is getting thinner, the walls of the uterus are getting thinner as a result of senile atrophy. If this goes on we shall have a diminution in the menstrual flow. Some months she flows more than others. This may be due to the fact that there is not much contractile power in the muscles of the uterus so as to hold the blood, and as a result the blood-vessels are open and blood escapes rapidly from the open channels.

As to the question of pregnancy, I did not pass a sound into the uterus. I did not think it were wise to do so, though I had little suspicion of pregnancy; still the color of the two cervices, the one in the woman I told you was pregnant, and in this patient, is almost identical. The venous congestion makes the two cases almost alike, yet one does not indicate pregnancy and the other does. The fact that she has borne so many children is the reason of this venous congestion. There is an enlargement of the venous trunks in the pelvis around the uterus and in all the pelvic viscera. The patient is troubled with varicose veins in the left leg extending up the thigh into the pelvis, which probably accounts for the venous discoloration, which is so marked.

I fully believe the menopause is approaching. The irregularity of the menses is indicative of it. They have been irregular for a year. That is the ordinary way in which the menses stop: first, by a slow diminution, then becoming irregular and finally ceasing altogether.

Remember a word of caution with reference to the return of the menstrual periods. If, after they have stopped for two, three or six months, they should return with increasing severity and with a larger quantity than usual, and especially if along with the increased quantity you have an offensive odor, you should make an examination at once for malignant disease. If they simply stop for a time and return in their ordinary way, and there is no more offensive odor than formerly, it is a symptom of the menopause. When the menses stop for a time, then return again, especially if there is any odor or considerable increase in the leucorrhœal discharge, make an examination at once so as to find out whether there is malignant disease; for if there is you cannot treat it too soon. If there is to be an operation it should be done at once, as soon as the diagnosis is made.

With this case we believe we have the menopause approaching, from the lessened weight of the uterus, from the diminished menstrual flow and from the irregularity of the menstrual flow; and that the congestion is simply the venous congestion which belongs to the varicose veins in the pelvis and below, not to pregnancy, as in the other case.

Sterility from a Miscarriage.

I will now say a few words with reference to the next patient. She is of German birth, was 14 years old at puberty, and is now 26 years old. She has been married eight years, but has not borne any children; she had one miscarriage seven years ago. For the past week she has been suffering more pain in the back and head than formerly; she also suffers from nausea and vomiting each day after meals. She has been also recently complaining of diarrhœa; her appetite is poor; she complains of frequency of micturition, and has considerable pain when passing urine. Her menses are regular, but she suffers pain during the periods, and flows too much; she has a small amount of leucorrhœal discharge, but this is not constantly present; the cervix slightly lacerated; there is right perimetritis, and the left ovary and Fallopian tube are involved in the process of inflammation. She has been led to come here on account of sterility. She has been married eight years according to the history, and had a miscarriage soon after marriage. Now she suffers pain at the time of sexual intercourse; it makes her feel sick afterwards. She feels quite uncomfortable, and especially so of late. She wants treatment so that she may have children.

Why is she sterile? What condition of things is there in the pelvis to produce sterility? Surely not the lacerated cervix, for that is not sufficiently extensive to produce that. How about the perimetritis—the inflammation that is evidently about the left ovary and tube, and also affecting the tube on the right side chiefly, though the left seems to be involved in the inflammation? There is little doubt in my mind that the sterility in this case is due to the condition of the Fallopian tubes.

While we have learned little as to the cause of the miscarriage, or what accompanied that unfortunate occurrence seven years ago, I believe that if we reason in this wise we will not be far from the truth: That there was at that time a septic infection or inflammation climbing up from the lacerated cervix to the uterus, and then onward into the right Fallopian tube, giving the tenderness about the ovary, and giving her a reason for the pain of which she complains during sexual intercourse. Whether there is also sufficient inflammation in the Fallopian tube on the left side to produce sterility I am not able to say, but I suspect it. The cervix is not in a very unhealthy condition, neither is the uterus. She has very little leucorrhœal discharge from the cervix, so that I believe that it is disease of the ovary and tube on the right side and the tube on the left side that has produced this sterility, and that these diseases came from septic infection, dating back to the miscarriage which occurred seven years ago.

How much can we promise her as regards the certainty of cure so far as the sterility is concerned? That, I believe, will depend largely on the success in removing the inflammation in these deep-seated parts. How shall we do it? Can we do it by galvanism? It would certainly seem from experience in many cases now that galvanism would promise as much as anything that we have at our command. By electricity applied to the interior of the uterus you may directly affect the tube and ovary; but with a comparatively healthy uterus and cervix and a healthy vagina, it does not look as though you will accomplish very much good by other local treatment applied to these organs. External applications of a stimulating character may be of some advantage; but I believe in her case that electricity is likely to be more advantageous and beneficial than any other remedy that can be applied. The galvanic current should be employed in such a manner as not to produce much pain, and that of course will depend entirely upon your experience with it. The proper strength of current necessary will depend upon your experience with this particular case. Five or even ten or more milliampères may be necessary. The electricity may be employed once a week. Twice a week is the rule, and not oftener than three times a week, the current being applied five minutes at first, then ten, fifteen, or even twenty minutes later. But be sure to use a mild current at first that shall not produce much pain. Attention should be paid to the condition of the bowels, to the appetite, and gases in the alimentary canal. Mercury in small doses—one grain—three times a day, may be given, with some simple anodyne or

astringent along with it, if necessary. Powdered salol, or the pills of salol, five grains each, may be given three or four times a day; corrosive chloride in pills of one-hundredth of a grain each may also be administered if the gases are in the stomach and returning from that region. In a word, attend to her general health, at the same time look as best you can after the local health. Promise her the best attention and skill you can command. Be careful not to promise her that you will effect a cure in a month or two, so that she will become pregnant; for sterility is one of the diseases the cure of which is exceedingly uncertain.

In a case like this, where there is a possibility that both tubes are diseased and one ovary involved, be careful about promising to cure the sterility. Of course an operation for a permanent cure of her ailments—diarrhœa, backache, her stomach disturbance, headache, etc., by the removal of the ovaries and tubes is not to be thought of until you have given up all hope of relieving the local disease and carrying out her wish of being a mother. It may be necessary eventually to remove the ovaries or tubes, but do not think of it at present. If you can, by your skill, get the patient so well that she may become pregnant and bear children, you are likely by the wonderful changes that take place during pregnancy to have the local diseases we have pointed out in the condition of the tubes and ovaries, one or both, as the case may be, completely and satisfactorily removed by the processes attending gestation.

There is this caution: Suppose you had succeeded in having her recover sufficiently to become pregnant, and you are so fortunate or unfortunate as to attend her at confinement, remember what you know of her; that she probably had septic infection years ago; that there are likely to be still cysts or pockets in which the virus, bacilli, or infecting germs are still lodged, and which, in the processes which attend parturition, they are liable to be let loose again in the tissues. Remember, I say, her previous history and watch her with greater care, that she may not get subsequent septic infection. You may, with care, protect her from being infected from the outside. As regards infection from herself with this miscarriage, she may become infected by the remains of the disease that existed six, seven or ten years ago.

Just a word with reference to the painfulness of sexual intercourse: I fully believe, and perhaps I have expressed it once before, that it is our duty to find out whether sexual connection gives great pain or not in these cases. It is just as important for us to determine this as to know with reference to mastication whether the teeth are doing their work easily and without pain; whether or not deglutition produces a great deal of pain. It is not at all inappropriate to make such inquiries, but the information should, of course, be obtained in an appropriate way.

"PUS TUBES."—RHEUMATIC "FLAT-FOOT."—TREATMENT WITH A SILICATE OF SODA DRESSING.—SUB-ACUTE RHEUMATISM WITH MITRAL DISEASE.—DISLOCATION OF THE KIDNEY.[1]

BY MORRIS LONGSTRETH, M. D.,

VISITING PHYSICIAN TO THE PENNSYLVANIA HOSPITAL, ETC.

Pus Tubes.

Gentlemen: I have to-day some specimens to show you, which are of a character and quality which we do not often see, and which explain what is so frequently before you now, and so constantly being spoken of in these days. This stomach is evidently an alcoholic affair, very strongly so. If you will examine into the quality of its mucous membrane you will see the fibroid changes there which are characteristic of the alcoholic action. The kidneys also show alcoholic disease. The heart is hypertrophied upon the left side.

These are all interesting; but here is a specimen to which I wish especially to call your attention. It is the uterus with its appendages. This patient has evidently suffered from the incursions of gonorrhœa, although I have no history to that effect. At any rate she has had a tubal inflammation, and here is the closed up and cystic Fallopian tube, in which all of the active symptoms of inflammation have subsided, and, we might say, a cure has been effected. The tube is hermetically sealed, the ovary surrounded with inflammatory lymph, and containing a blood cyst. Menstruation has

[1] Delivered at the Pennsylvania Hospital.

been going on since the closure of the tube; and as the blood could not escape, it has emptied itself into this cyst. This specimen illustrates what I believe is the end to which all of these inflamed Fallopian tubes would come, if they were let alone. The active inflammation closes the openings of the tube, and lymph and pus are thrown out into the tube and accumulate there. When the tube becomes full, the blood supply is interfered with from the pressure within the tube, the thick product undergoes a mucoid degeneration, and a large cystic tube is produced, larger than it was when the pus was in it. In tubes like this, which have become wholly cystic, and in those in which suppuration is still going on, microscopic examination reveals that they are not pus cavities, as is claimed by some gynecologists, but that they are lined with perfectly healthy mucous membrane, lined in many cases with columnar cells. Therefore, this process is not a true suppuration. Many gynecologists remove these tubes, urging as their reason for so doing that there is great danger that the inflammation will spread from the tube and reach the peritoneum, and there light up an inflammation which will produce certain and speedy death. This would be true were the process in the tube a true suppuration; but it is not, and there is no such danger to be dreaded. Then they claim that the Fallopian tube may attach itself to the ovary and adhere, and the inflammatory process extend to that organ, producing there an abscess with a resultant peritonitis and death. This is true, but it is the rarest thing for such an accident to happen. As a rule, the tube does not become attached to the ovary, but soon closes, and the inflammatory process is retained thus, in the tube itself. In a suppurating tube which is not over-distended, we find the mucous membrane in a luxuriant state of growth. The stage which is shown in this specimen is the one to which all such cases will come if let alone. The records of this hospital for twenty years past do not show any death from the bursting of these suppurating tubes, or from peritonitis arising from this condition.

Rheumatic Flat-foot.

I have here a case of chronic rheumatism of a form which is rather unusual, and which is generally passed from the hands of one physician to those of another, and which should go into the hands of the orthopedic surgeon. The physician, as a rule, does not do much good for cases of this nature. In a great many instances we cannot do them any good; but in some we can, and I intend trying it here.

Here is a man, strong and hearty, and who has never had any particular illness. He comes to us now suffering from rheumatism in his feet. He is a worker in salt, and consequently his feet are constantly wet. He is unable to stand upon his feet, and you will notice the peculiar flat appearance of the sole of this foot. What has really happened here, is that, either owing to the prolonged exposure to the damp salt or from a true inflammation, the ligaments of the foot have softened, and, their support being removed, the foot has consequently flattened. The man is suffering with flat-foot. People suffering from such a condition have no spring to their feet, and, in fact, walk upon their heels. What I have tried to do in this case, is to build up the instep by giving it some support. As yet, he is no better than when he was admitted. I have endeavored to build up an artificial instep which will exactly fit his foot. To do this we must secure some soft material, which when placed upon a bandage will harden. This support, which I show you now, was put on yesterday about this hour, and has been allowed to harden and dry, although it is not completely hardened as yet. When I put a measure under this foot it seemed as if the centre of the foot, which should be arched, touched the ground. The instep here, you will notice, is broader than it should be, and, as I press upon it, is quite painful to the man. Pressure upon the sole is also very painful.

The support which I showed you was made by taking half a dozen lengths of bandage, cut to fit the foot, and soaking them in "soluble glass"—the silicate of soda. These are laid lengthwise upon the foot, and in this way an instep is gradually built up for the patient. This is a fair specimen of an arch which can be built up in this way. By varnishing this, to prevent the absorption of moisture, we can have a real good support for the foot. I have had to do with a great many such feet, in which the ordinary remedies will do no good; and it is only by doing this one thing that we secure a rest for the foot, and give to the patient the ability to walk. In making this sole we do not wish it to extend too far in front, nor too far back toward the heel, or

the support will come at the wrong point. Each layer is soaked in the sodium silicate and applied to the sole of the foot, and then the whole is surrounded with bandages; and in this way the pressure is made at the points where it is desirable to support the foot. Later we can have a steel made after this model, which can be placed in the shoe as a constant support. Under this treatment the ligaments regain their tenacity and resume their original condition. I will ask this man to stand up and show you how much he can do in the way of walking. There is a little spring left in the right foot, you will notice; but in the left it is almost entirely gone.

Subacute Rheumatism and Mitral Disease.

Here is a patient who comes to us with some rheumatic trouble, which is not very violent at any point. She has often had attacks before this one, and some of them were very severe. After some of these the patient has noticed a shortness of breath, especially after any considerable exertion. The present attack commenced in her elbow four weeks ago, but later shifted to her wrists and the other elbow. All became swollen, one after another. This was attended with a cough at night, some præcordial pain and shortness of breath. There was also excessive perspiration at night, which she called night-sweats, but which we know to be different from night-sweats, as that term is generally understood. Her bowels are regular; her urine is passed freely, although at times it is irritating and scalding, and darker in color than is normal. She complains of pain in her legs, and there is some swelling here, though not much, only a pitting on pressure. Her tongue was very dry on admission, and there were dry, whistling râles in the anterior upper portions of the chest. She had very little fever on admission. There was a morning rise and an evening rise after this, though the fever was not marked.

In ordinary cases of rheumatism we give the patient ten-grain doses of the salicylate of soda every hour until six doses are given, making a drachm in all. This finishes the medicine for the day. But here the woman was given fifteen grains every fourth hour, in a quantity of water, and her diet was kept low. Under this treatment her tongue became moist, and she defervesced on the following day. Now she has but little pain at any place. Her wrists are normal; as are the other joints. Her breathing is a little stuffy yet, and she has a slight cough. There is a little perspiration noticed at night, but no pain in the chest. The râles are almost all gone. Over the præcordial region, at the apex, the first sound is not clear: but it is now very difficult to hear any murmur, although when she was first admitted it was very marked. There is some excitation of the pulse, which, however, was never very rapid. Respiration has never been hurried; but there has been some depression experienced. Her lips and gums are somewhat dusky; but this is not noticed upon the fingers. She is still on a low diet; and she will be kept free from motion until this trouble is all over.

I brought this case in to speak of it in some of its relations, as suggested by the history. It is a case in which a great many joints are involved, and yet there is no great amount of rheumatism present; and in which after many occurrences of rheumatism, there comes on some cardiac troubles. There has never been any heart trouble before, and never any severe, sharp attack of endo- or peri-carditis, and, still, she has a mitral murmur. There has been enough change in the mitral valve and in the heart itself to produce a disturbance of the circulation. There is always a block in the passage of the blood from the right to the left side, whether there be a narrowing or a regurgitation, so the nature of the lesion of the valve is not necessarily important. The treatment is the same in both cases. The difficulty is increasing in this patient's case; the heart is altering in size. Its cavities are dilating, and its muscular walls are failing. Unless her nutrition is maintained, and she is shielded from fresh attacks of endocarditis, she will rapidly run down.

Dislocation of the Kidney.

Here is a very interesting, we might say mysterious, case. The patient has been in the hospital since December 2, when, being a Polish woman, she was admitted with no history. Her temperature on admission was 104°, and since then has varied, reaching at times 105°. Through an interpreter we have learned that, after lifting a heavy weight during her menstruation, she was seized with a violent pain in the back and lower portion of her abdomen. This was accompanied with difficulty in micturition and in emptying her bowels. Her tongue

was dry, black and tremulous. She had had some purgative treatment before admission, and was then having some diarrhœa. Such a history led us to believe she had typhoid fever. Later, when we succeeded in getting some urine, it was found to contain albumin. Very soon it became quite evident that she was not suffering from typhoid fever. She presented none of the characteristic symptoms of that disease. She lay in bed with her feet drawn up, to relieve the constant pain she felt in her abdomen. The abdomen was scaphoid, and with no signs of peritonitis. Her diarrhœa continued through the fourth week she was in the house. The urine she passed gradually increased in amount. Constipation followed, and the urine again decreased in amount. She now has a sub-normal temperature, which has continued for several days. When I first saw her, I got her out of bed. Her urine was then normal in character. Her bowels have been regular since. Within the last few days, without any treatment, she has commenced to pass an enormous quantity of urine. On the nineteenth of last month she passed 25 ounces; two days later, 32 ounces; two days later, 38 ounces; on the first of this month she passed 34 ounces, and on the following days, 46, 48, and 80 ounces of urine, respectively. In less than twenty-four hours she has passed 110 ounces. At one time 25 ounces of urine were emptied out of the bladder. There has been no uremic symptoms; and yet, where has she been storing up this urine? I bring the case before you as a fresh case. The patient is now in a fair state. I think that at first there was some displacement of the organs in the pelvic region, or, what I have sometimes seen, that the severe strain actually gave rise to a dislocation of the kidney. Such a thing has been known to have occurred. As a result here there has been some damming up of the fluid. We shall make an examination of her pelvic and lumbar regions to see what we can find. We shall try to ascertain the size of her kidney when passing urine and when not. Often a dislocated kidney will twist its ureter, and for the time the urine cannot escape. It is curious that a patient can retain such a large amount of urine, and where it is stored up I cannot say.

The Illinois Board of Health has just issued a new edition of its Report on Medical Education.

COMMUNICATIONS.

A HISTORY OF SPECTACLES.

BY L. WEBSTER FOX, M. D.,

OPHTHALMIC SURGEON TO THE GERMANTOWN HOSPITAL, PHILADELPHIA.

Spectacles are crutches for the eyes, said an old writer on optics; but the date at which the invention of spectacles was brought to the notice of the world is now one of the things which have been "lost in the mists of antiquity."

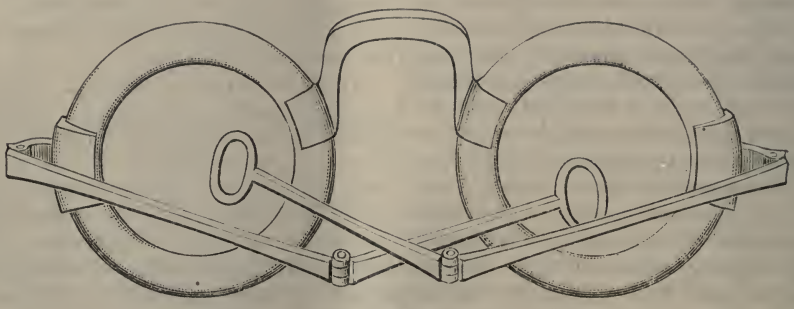
The late Wendell Phillips, in his lecture on the "Lost Arts," said: "And even spectacles are among the things which were known to the ancients;" but on the tombstone of Salvinus Armatus, a Florentine nobleman, who died in 1317, is inscribed that he was the inventor of spectacles. Whether the ancient Egyptians and Phœnicians possessed the knowledge of the action of lenses is only a matter of conjecture. The art of engraving upon glass was known 2423 years B. C., and it is impossible to recognize certain delicate lines in specimens of engraved glass which date back many centuries before Christ, without the aid of a strong convex lens. It is therefore reasonable to suppose that the artist had an aid to his vision in engraving these delicate lines. At one time glass-blowing was the chief industrial occupation of the inhabitants of Alexandria. Rome excelled in the making of glass, and in many respects this art has never been equaled. Pliny tells us that, for drinking vessels, glass was preferred to gold and silver. If the art of making glass had reached such a degree of perfection, why should not spectacles have been also made and used?

History also mentions that Nero (A. D. 68) used to view the games in the theatre from the top of the Procenium, and in the amphitheatre, through a concave glass suspended in front of him, because he was exceedingly near-sighted. Whether or not the ancients had spectacles we do not know; but it is reasonable to suppose that they had at least aids to assist their vision in the exquisite engraving found upon gems and jewels.

Our first positive knowledge of spectacles is gathered from the writings of Roger Bacon, who died in 1292. Bacon says: "This instrument (a plano-convex glass or large segment of a sphere) is useful to old men

and to those that have weak eyes; for they may see the smallest letters sufficiently magnified." Alexander de Spina, who died in 1313, had a pair of spectacles made for himself by an optician who had the secret of their invention. De Spina was so much pleased with them that he made the invention public. M. Spoon fixes the date of the invention between 1280 and 1311. In a manuscript written in 1299 by Pissazzo, the author says: "I find myself so pressed by age that I can neither read nor write without those glasses they call spectacles, lately invented, to the great advantage of poor old men when their sight grows weak." Friar Jordan, who died in Pisa in 1311, says in one of his sermons, which was published in 1305, "that it is not twenty years since the art of making spectacles was found out, and is indeed one of the best and most necessary inventions in the world."

Fig. 1.



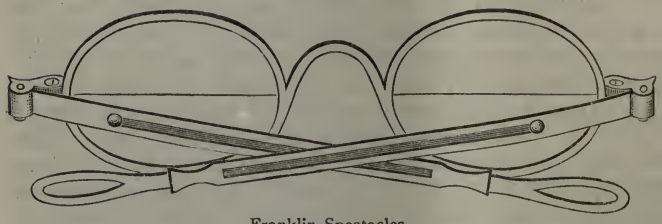
Ancient Spectacles.

Granting that spectacles were invented about 1292, it was not known until the year 1600 why certain individuals required convex and others concave glasses.

Kepler, who demonstrated in what manner the rays of light were refracted through the humors of the eye and formed a distinct picture upon the retina, also showed how the images of objects became confused and how concave glasses rendered such images clear. He further explained why it is that the brain receives an erect impression, although the image of the object is inverted upon the retina. After the application of convex and concave glasses for visual defects, the next peculiar discovery was made by Sir David Brewster, who upon testing his vision with a Porterfield optometer (about 1758) found that he could see vertical lines at a distance of ten inches, while horizontal lines were visible to him only at a distance of seven inches.

Benjamin Franklin has been credited with devising a double-focus spectacle—in what year history does not record. Franklin was born in 1706, and being hypermetropic, it is reasonable to suppose that he devised this glass about 1750. These spectacles were split glasses, the upper half to be used for distant vision, and the lower half for reading or near work. The chief objection to wearing this kind of glasses is that they cut off the lower half of the visual field in walking. (Fig. 2.)

Fig. 2.

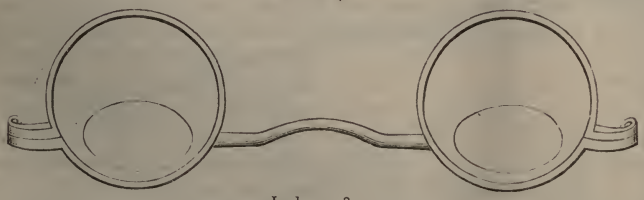


Franklin Spectacles.

Sir David Brewster was the first to discover the astigmatic eye; but the correction of this abnormality of sight was left to Mr. Airy (1825), who found that his left eye had very defective vision, so that he was unable to read with it, while the appearance of a candle-flame looked at with his left eye was not circular—as when seen with his right eye, which was also defective for distant vision—but was shaped like an ellipse, with its long diameter inclined at about 35°. The concave glass which rendered vision distinct for the right eye partly corrected the defect in the left. He concluded that the curvature of the

cornea was greater in one diameter than the other. He found, too, by drawing on paper two lines crossing each other at right angles that at a certain distance from the crossing point one line was distinct while the other was indistinct. He also found that, by bringing the paper nearer, the invisible line became clear and the formerly clear line became indistinct. From these phenomena he concluded that the refraction of one plane of his eye was different from that of the other, and, consequently spherical lenses would not benefit him. His object was then to make a glass which should refract rays more powerfully in one plane than in another plane at right angles to it. He therefore had a lens constructed which was doubly concave, one of the surfaces being spherically concave, and the other cylindrically concave, and of such a curvature as to bring to the same point the vertical and horizontal lines. An optician by the name of Fuller, at Ipswich,

Fig. 4.



Jachan, 1839.

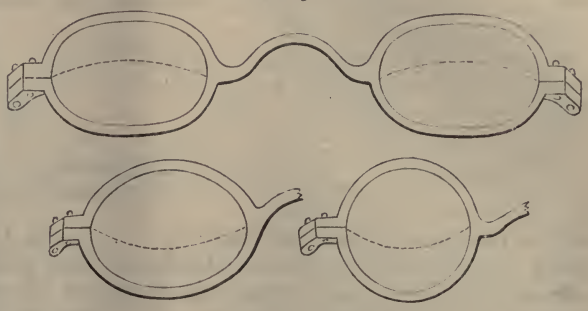
made this glass, which gave Mr. Airy useful vision in his left eye.

An improvement on the Franklin glass was made by Schnaitman, of Philadelphia, who, in 1836, was granted a patent on bifocals, which were the first ground bifocals made in this country. (Fig. 3.) The upper half was used for distant vision, the lower half for near work.

C. H. L. Jachan, of New York, in 1839, was granted a patent of a glass for spectacles, "by leaving a small, circular, clear space opposite the pupil of the eyes, to be surrounded by a ground portion, extending over the remainder of the surface so adjusted as to leave a larger proportion thereof above the eye, and in the case of concave or convex glasses that the centre of convexity or concavity shall coincide with the centre of said clear, circular space. I also claim," he says, "in combination therewith the location of the bridge and the hinges and bows to adjust the clear space to the pupil of the eye all in the manner and for the purpose above described." (Fig. 4.)

Hotchkiss and Norton, on April 17, 1849,

Fig. 3.



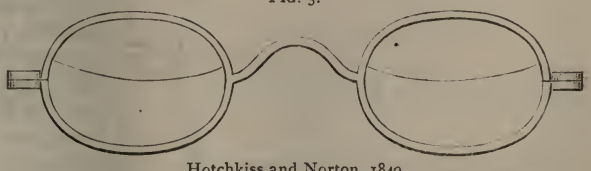
Schnaitman, 1836.

were granted a patent for a bifocal which was exactly like the bifocal glasses devised by Schnaitman in 1836, as show in Fig. 5, and which was no improvement over the spectacles made thirteen years before.

Samuel Gregg, of Boston, in November, 1866, was granted a patent on bifocal spectacles based on the following claims: "constructing glasses of spectacles where two distinct lenses or *segments* of lenses are contained in one glass adapted for seeing near and distant objects in such a manner that the upper edge of the convex lens adapted for seeing near objects shall be concentric with the upper edge of the lens adapted for seeing distant objects for the purpose of enlarging the field of vision." (Fig. 6.)

Edmondson, in 1867, followed with a

Fig. 5.



Hotchkiss and Norton, 1849.

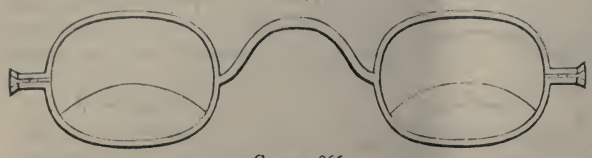
more complex bifocal spectacle. The following is his description of it:

"Fig. 7a is a perspective view; Fig. 7b is a section on the line x x of Fig. 7a.

"Each lens consists of two pieces, of different magnifying powers, and set in different planes. The line of division between

the two is the horizontal mid-section; the upper portion is of greater focal distance for viewing more distant objects. The plane of the upper portion is at right angles to that of the bows; and at about the same angle to the axis of the eyes when adjusted horizontally. The plane of the lower halves is inclined to the former so as to be about at right angles to the axis of the eyes when declined in reading, etc.

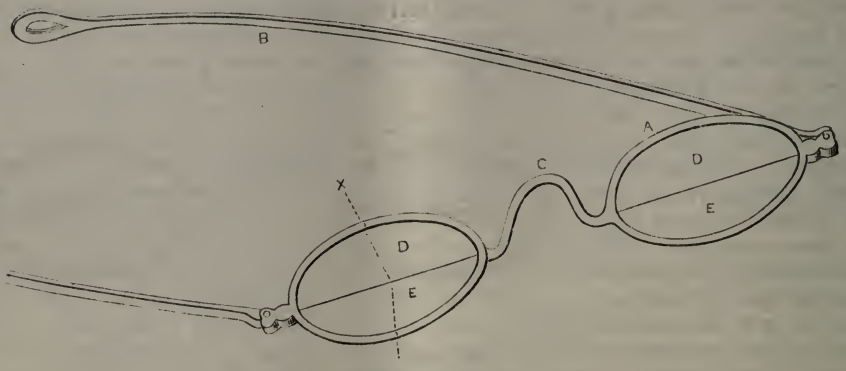
FIG. 6.



Gregg, 1866.

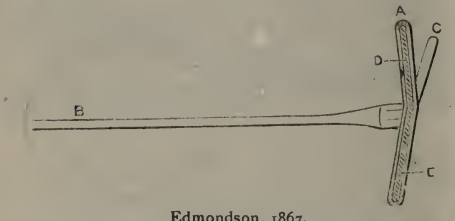
"In the drawings, A A are the bezels, which confine the lenses; B the bows, by which the spectacles are clasped to the head; and C the bridge by which they are supported in position. The lenses in each case consist of two pieces. The upper half, D, is of a longer focal distance than the other, that is, less convex; it is designed for distant objects such as ordinarily seen by a party walking, objects which are assumed to be about the height of the eye and short distances above and below. The lower half, E, is of a more convex character, so as to suit the eye for reading, writing, needlework, etc., for which purpose a stronger power is generally required, as is familiarly instanced in the case of a person reading with spectacles and looking over them at persons or other ordinary objects at a greater distance than the book. It is desired to maintain the proper relative positions of the two portions to the axis of the eyes, and to secure this the upper half is in a plane at right angles to the bows B, so that the portion D meets the requirements of the eye when looking straight forward at the scene, and the portion E is at such an angle with the portion D as will correspond to the ordinary declination of the axis of the eyes in reading, etc. This adjustment of focal length and plane to the varying conditions and requirements is a valuable and hitherto undeveloped feature in spectacles.

FIG. 7a.



Edmondson, 1867.

FIG. 7b.



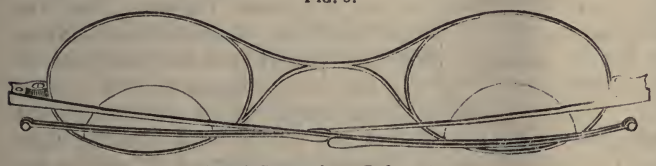
Edmondson, 1867.

"I have heretofore spoken of the invention in reference to the use of convex glasses, in which case the upper portion has the least power, but my improvement is also adapted for glasses for those troubled with myopia, in which case the upper half would be the stronger power, more concave than the lower."

I have in my possession a pair of bifocal spectacles which came from Paris in 1870, in which a *supplemental* lens was cemented on the lower third of the distant glass, and is semicircular in form. This added lens is ground exceedingly thin at its outer and upper periphery, so that in looking through it the juncture between distant and near

glass cannot be noticed by the wearer. How long these spectacles had been in use in France I have not been able to ascertain; but they were not considered a novelty when I purchased them. In fact, these spectacles are of the same style as those which have recently been so much written about and advertised in theatre programmes, as something entirely new and novel. (Fig. 8.)

Fig. 8.



French Spectacles. Before 1870.

Ira S. Doten, in May, 1877, devised and patented spectacles having separate frames from the frames of the spectacles proper, and having such frames on pivots, so that the glasses may be turned to bring the required foci into proper position for use.

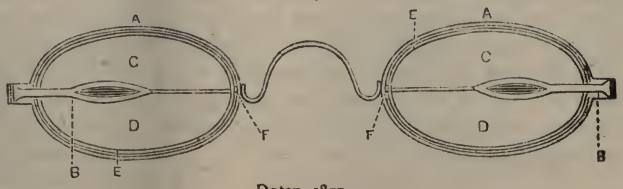
"As shown in Fig. 9, the spectacles are arranged for reading, the section D, having the strongest focus, being down. In this position the upper segment C can be used, if it is desired to look at anything above the wearer, at a distance off, without changing the positions of the foci; but when it is desired to use the spectacles for walking, the segment C must have the lowest position, as the eye naturally looks down in walking; and to attain this end all that is necessary to be done is to revolve the frame E, bringing the section C to the lowest position, when the focus will be the one required for walking.

"By this arrangement all the advantages derived from two pair of spectacles having different foci will be obtained, and the disadvantages arising from the use of spectacles having glasses with sections of different foci held stationary in the frame will be overcome, as by revolving the glasses the proper focus can be brought into position with no change in the place where worn."

Louis Franklin, in this same year, claims an improvement in spectacles, which consists in so constructing the two glasses that the upper one can be removed or folded back out of the way, so as not to obstruct the vision, or it can be folded down over the lower one, so as to form a double thickness and thereby increase its powers for reading.

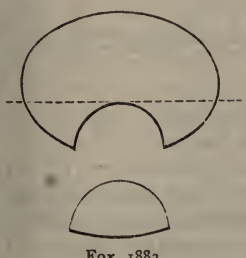
In all spectacles of the bifocal pattern, cylinder glasses were not added up to this date. When it was necessary to use a stronger glass for reading, an "extra front" spectacle was universally given, or else the presbyopic correction was added to distant-vision glasses necessitating two pairs of spectacles. To overcome this inconvenience I suggested to John L. Borsch, the optician, in October, 1883, the practicability of cutting out a segment of the distant glass which had a cylinder glass added, and inserting a sphero-cylinder, which was useful in reading. By such a mechanical contrivance it is obvious that but one pair of glasses was needed for distant and near work. These spectacles, from the manner in which they were made, had their optical centres in the geometrical centres, and in consequence had not the disadvantage of a prismatic effect. (Fig. 10.) One serious objection was raised against these bifocals, and that was that, where it was necessary to give a combination of high power, the curved lines formed by the double refracting surfaces at the juncture of the lenses interfered with vision. In low powers, however, this was not so noticeable. The "curved line objection" was overcome

Fig. 9.



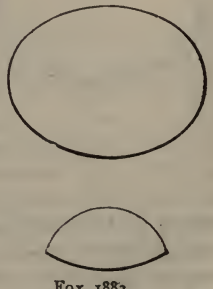
Doten, 1877.

Fig. 10.



Fox, 1883.

Fig. 11.



Fox, 1883.

by Borsch, in making an "improved bifocal" in which the segmental lens was cemented upon the long-distance glass, grinding this supplemental lens so thin at its upper and outer periphery as to make an almost invisible line at the juncture of the two glasses. (Fig. 11.)

The only originality to which I lay claim is the adding of the cylinder glass to the sphericals. Gregg devised the cutting out of the *segmental* lens, and the French opticians the cementing on of the *supplemental* lens.

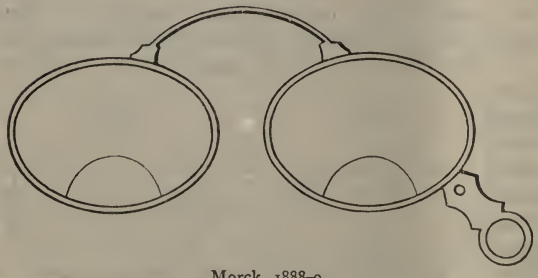
Roberts, in 1884, follows with a revolving spectacle practically the same as devised by Mr. Doten.

In October, 1884, Dr. B. M. Hanna, of Pittsburgh, received a patent for an improved bifocal lens. Whether or not Dr. Hanna combined cylinder glasses with his spherical glasses I have not ascertained. He, however, claimed only the improvement "to all ordinary forms of lenses, whether double convex, periscopic convex, double concave, periscopic concave, or other form."

FIG. 12.

Hanna, 1884.

FIG. 13.



Morck, 1888–9.

"In constructing," he further says, "such eye-glasses, the short-focus lenses may be cemented on the long-focus lenses, or they may be formed in the original operation of grinding, or by subsequent grinding, or the lens may be bored out and the lenses inserted with cement. I, therefore, do not confine my invention," he says, "to any particular mode of construction, as that will be best determined by the circumstances of individual taste, conditions of use, relative cost, or the fancy of the maker. Likewise the form of the lenses may vary." Dr. Hanna has only one claim to originality, and that is the insertion of the reading glass in the perforation made in the distance glass. (Fig. 12.)

George W. Wells, of Southbridge, Mass., received a patent, June 2, 1885, and claims as new a bifocal with a cemented supplemental lens, consisting of a whole lens of the weaker power required for the upper portion of the completed lens and a half lens applied to the inner face of the whole lens to give the stronger power required in the lower portion of the completed lens.

This bifocal lens is exactly the same model as the one made for me by Mr. Borsch in 1883, and was followed by Morck with a similar one five years later. (Fig. 13.)

August Morck, Jr., was granted a patent in October, 1888, in "reference to certain improvements in spectacles or eye-glasses, and its object is to render more effective such spectacles or eye-glasses as are employed for combined near and far range purposes." Morck was the first to claim by patent, "in combination with spheres, *cylindrical* glasses and prisms." In describing the segmental lens which is cemented upon the long-range glasses, he uses the following language: "Is made to taper to a feather edge along the segmental line, and therefore the lens has its thickest part along the lower edge. This construction obliterates the surface-line to the sight while giving a perfectly defined area for near vision." In April, 1889, Mr. Morck received another patent on a "spectacle lens," in the construction of which he employs "two lenses of different powers of such configurations and relative sizes as to avoid the objection

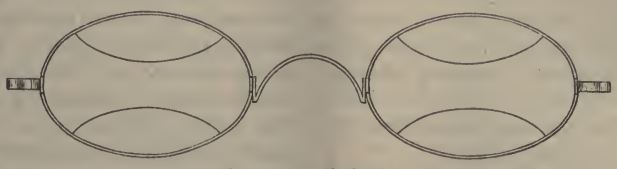
of the eye resting at the same time on both lenses and the consequent blurred or dizzy effect upon the vision;" and he claims as new "the combination, with a far-vision lens, having its lower edge cut out centrally in semicircular form, of a near-vision lens shaped to fit said central semicircular opening in the far-vision lens and secured therein by suitable adhesive substance substantially as set."

To any one who has followed this article it must be obvious that Morck's first patent had already been anticipated in the glasses in use in Paris in 1870, by me in 1883 and by Dr. Hanna in 1884. His second patent was anticipated by Gregg in 1866 and by me in 1883.

Having now given a history of the development of the "bifocal" lens from Franklin's day to the present writing, I must describe a "trifocal" which was made for me by Messrs. Borsch & Rommel, January 15, 1890. The patient required *sph.* + *1. D.*, for distance; *sph.* + *3. D.*, for (piano) music; and *sph.* + *4.50. D.*, for near work. The occupation of the individual made necessary this kind of glass, which has been worn constantly up to the present with entire satisfaction. (Fig. 14.)

Where it is necessary, concave or convex lenses, with or without cylinders, may be made in like manner.

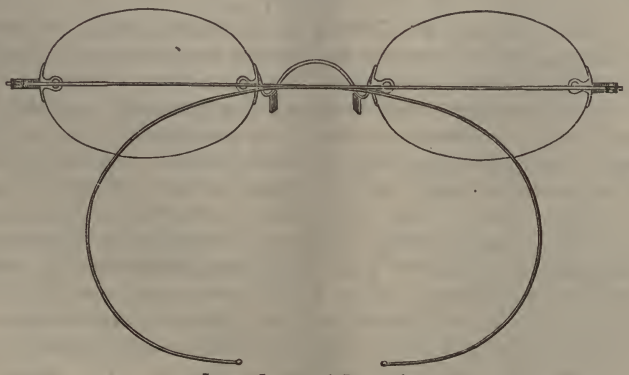
FIG. 14.



Fox, 1890. (Trifocal.)

The base glass is the *sph.* + *3 D.*, the optical centre coinciding with the geometrical centre—understood in optics as the normal centre—and is the glass used for medium vision. The segmental lens may be ground in such a way as to preserve its prismatic effect. In other words this lens has the following equation:—*1.50 D. sph.* on one surface and—*0.50 D. sph.* combined with a prism 3°, base up, which, when cemented upon the *sph. 3. D.*, equals *sph.* + *1. D.*, optical centre coinciding with geometrical centre; being the glass used for long range. The lower, segmental lens equals on one surface *sph. 1.50 D.* on the other surface *sph. 3. D.*, with prism 3° base down; which when cemented to the *sph.* + *3. D.* (base glass) equals *sph.* + *4.50. D.*, reading glass, the optical centre coinciding with the geometrical centre of near vision. If the base glass is of a higher or lower refractive power, the figures of the segmental lenses will vary correspondingly; and it is of great importance that the optical centres coincide with the geometrical centres; which has not been so in the old bifocals and in many as made to-day.

FIG. 15.



Latest Improved Spectacles.

This brief sketch—which makes no pretension to completeness—shows how true it is, that there is nothing new under the sun.

1304 Walnut Street.

A CASE OF ANEURISM OF THE ABDOMINAL AORTA.

BY A. HAMILTON DEEKENS, M. D.,

RESIDENT PHYSICIAN AT ST. MARY'S HOSPITAL, PHILADELPHIA.

Aneurisms of the abdominal aorta, though our statistics show a considerable number of cases, are still sufficiently rare to merit a record. The following case, while showing several points of interest, is mainly interesting owing to its doubtful diagnosis, even to the last; when death and a *post-mortem* settled all doubts on the subject.

The history in brief was as follows:

Eliza Campbell, widow, æt. 38, born in Ireland, had one child, which died. She gives the following history. Came to the United States three years ago, after the death of her husband, and has since worked out for a living. The last year of her life before entering the hospital she had worked mostly at washing clothes, and had been a healthy, strong woman all her life, with a good family history. In the early part of last February, while washing, she felt a pain in her back, on the right side, just below the shoulder blades, and thought she had sprained herself in her work. The pain remained constant, but was not sufficiently severe to call for medical skill; and no attention was paid to it, other than to rub on some liniment. In a few weeks—just how many the patient did not remember—she noticed that there was a small lump or swelling on the right of the spine in the position of the painful spot. She mentioned the fact to some of her friends, who thought she was getting some kind of a tumor, and suggested painting it with iodine, which she did, continuing to do so for about two weeks with no diminution in the size of the tumor and no lessening of the pain. She now began to feel that her general health was suffering, and went to St. Mary's Hospital Dispensary for constitutional treatment. While coming there, her principal complaint was of pains and aching in her stomach and back, while mere incidental mention was made of a lump on her back. As the laity in general have a rather hazy idea as to the exact location of the stomach, confining it to a very uncertain area with boundaries at the ensiform cartilage and pubic bones, the Dispensary Physician concluded that her main symptoms emanated from some vague uterine trouble and treated her accordingly. Her condition not improving after a short treatment at the Dispensary, she was advised to enter St. Mary's Hospital and to undergo a thorough examination; which she did, entering April 10, 1889.

Examination at the Hospital showed a large pulsating swelling on the back, situated to the right of spine and about midway between the axilla and the crest of the ilium. The swelling at that time could scarcely be called a tumor, but rather a pulsating projection on one side of the back, with very faintly sloping sides which embraced a large area. On palpation it did not give the expansile pulsation characteristic of aneurisms, but rather the to and fro or throbbing pulsation which is communicated with each heart beat. Another characteristic feature of aneurism, viz., the *bruit*, was absent, except at rare intervals, when a faint sound could be heard. Pressure did not give pain; on the contrary a strong, firmly-applied binder encompassing the whole body was one of her greatest sources of comfort to the woman. She complained about this time of sharp, shooting pains, which she compared to that of an electric battery worked inside of her. When I first attended her, about two months later, the swelling had increased very much in size and attained more the appearance of a tumor, in the commonly accepted designation of the term. The pains were now intense and more of a steady and gnawing character, and she compared them to the sensation of the nibbling of a mouse at her insides. The pains were mostly referred to the umbilical region, radiating down to the right hypochondrium. They were so intense that large doses of morphia, hypodermically, were necessary to quiet her. During the last month she took between five and six grains daily; and even that large amount often did not suffice to ease her sufferings. Her staple treatment was rest, with light diet, principally milk and broth. Her appetite left her entirely. Iodide of potassium was tried, but she refused to retain it. Simple tonics, such as quinine, gentian, etc., were given as long as her stomach would stand them. The bandage before referred to, with alcohol bathings, afforded her the greatest relief.

The *ante-mortem* diagnosis was full of doubt. Some physicians claimed it for an aneurism of uncertain location; others diagnosticated it as an internal tumor or abscess of debatable origin; and up to within a week of her death the advisability of tapping

it was suggested. Some thought it might have originated in the lung, or in the liver, from the hepatic artery. The thoracic aorta was included in these suggestions, also the abdominal aorta just below the diaphragm.

On October 5, 1889, the woman died, and on the following day I made the *post-mortem* in the presence of several physicians; and the true state of affairs was made out. It proved to be a sacculated aneurism of the abdominal aorta, commencing directly above the cœliac axis, and including an inch and a quarter in length of the aorta. It expanded into a sac which filled the greater part of right side of the abdominal cavity, and crowded the right lung into half its usual bulk. It extended two inches to the left of the spine, and below to a level with the crests of the ilia. The adhesions were so extensive and so strong that it was impossible to detach the sac from the surrounding structures. An approximate estimate of its circumference would be between thirty and thirty-five inches. It was firmly adherent to the abdominal walls, peritoneum, liver, intestines, etc. Its interior was nearly filled with organized fibrin, great masses of which I could take out with my hands, and several of which I have kept as specimens. Several of the ribs, posteriorly, had entirely disappeared. Several of the vertebræ were partly eroded, and sharp spiculæ of bone could be broken off them.

Among the symptoms complained of towards the last were a "swelling feeling in the throat," and painful pulsation in the neck on the right side. The woman's mind became visibly affected, and from being a cheerful, happy patient, she became melancholy, crying for hours at a time, thinking that she was going to be taken away from the Hospital; and no persuasions of her attendants had any effect in changing her ideas on the subject.

CONSUMPTION TREATMENT DONT'S.

BY THOMAS J. MAYS, M. D.,

PHILADELPHIA.

Don't prescribe for a chest disease until you are sure of your diagnosis.

Don't have a stereotyped prescription of cod-liver oil, hypophosphites, plenty of exercise, etc., for every case of consumption.

Don't despair of doing some good in every case; and never give a hopeless prognosis to your patient.

Don't overlook the fact that consumption is as amenable to treatment as are other chronic diseases.

Don't neglect details in treating this disease. Your success depends on your ability to control every movement of your patient.

Don't fail to realize that the pulmonary disorder is but the manifestation of a more deeply-seated disease.

Don't forget that in chronic pulmonary disease the digestive organs are of as much importance in treatment as the lungs.

Don't make up your mind to send your patient to Colorado or some other health resort as soon as you discover that he is suffering from consumption; but always bear in mind that, until he is convalescent, such an invalid is best off in a climate to which his body has, by long residence, become adapted; and that the practical results of high altitude treatment are not more favorable than those obtained nearer the sea-level.

Don't fail to perceive that bodily rest is the paramount factor in the treatment of this disease, and that next comes good nutritious food.

Don't let your patient dissipate his strength by walking or by exercising in any way; and always remember that he is on the verge of physiological bankruptcy, and that he must increase his capital stock of vitality by lessening his expenditures and by enlarging his income, or he will become insolvent.

Don't consign him to his room day and night if the weather is pleasant, and if it does not weary him to sit or lie in the open air: care being of course taken to protect him from unfriendly draughts of air.

Don't neglect to have his body well covered with woolen underclothing, which he wears day and night and changes every three or four days.

Don't let him know what the dining table has in store for him, because he always eats best when he is surprised with food.

Don't underestimate the value of the cook. The salvation of your patient is in her hands. She must be dexterous and able to render the food tempting and digestible.

Don't forget that the evening temperature of the patient must be reduced to or below 100° Fahr. before you can expect much permanent improvement.

Don't waste your own and the patient's time by giving quinine, salicylates, thallin, etc., to lower fever when you have such

serviceable antipyretics as antipyrin and phenacetin.

Don't discontinue the antipyrin or the phenacetin after the temperature is reduced, but administer them in smaller doses for the purpose of securing their excellent tonic effects.

Don't confide in antiseptic inhalations as having any influence on the phthisical process, although they are often useful in subduing a troublesome cough, and in allaying a bronchial irritation. Carbolic acid, creasote, and benzoic acid are used for this purpose.

Don't overlook the value of hot poultices applied to the chest during the day.

Don't lose sight of the fact that one grain of quinine, a quarter-grain of opium, one-grain of powdered digitalis leaves, one-sixtieth of a grain of strychnine, one five-hundredth of a grain of atropine, given in a pill four times a day, is a good tonic.

Don't forget that a consumptive who, on account of cough or other causes, cannot sleep at night never gets along well. Nitrous oxide by inhalation during the day and evening, and potassium bromide and codeia at bedtime by the mouth, often secure rest and sleep.

Don't omit to compel the patient to practice pulmonary gymnastics, both by forcing voluntary breathing, and by inhaling oxygen and nitrous oxide from a compressed air apparatus.

Don't overlook the great value of cod-liver oil when it agrees. It is best given pure, with a little lemon juice or vinegar before and after its administration. The hypophosphites must be given when the oil disagrees, or alternated with the latter.

PERISCOPE.

Intravenous Saline Injections in Diabetic Coma.

A striking case was related by Dr. Dickinson at the last meeting of the Clinical Society, and was somewhat encouraging as to the value of intravenous injection of saline fluids in cases of diabetic coma, although, unfortunately, a fatal issue eventually ensued, for after the first injection—of 106 fluid ounces—the patient regained consciousness to a very complete extent. The importance of such a respite may occasionally be very great—for instance, in the case of one who is attacked with diabetic coma without having made his will. It is something to know that by this method the coma can, temporarily at least, be made to pass away. The subsequent course of Dr. Dickinson's case is equally instructive. The patient relapsed into coma, and resort was again had to the procedure which had already proved of service. But this time the amount of saline fluid received into the circulation was actually more than the estimated average total amount of blood in the adult body. In spite of the state of plethora which so heroic a course must have produced, the patient once more regained consciousness. Dr. Dickinson's conclusions, that 100 or even 200 ounces of saline fluid may in such cases be introduced into the circulation with advantage, but that the benefit to be gained thereby can only be temporary, were doubtless justified by the experience in this case. Perhaps the same end might be obtained more rapidly if the injection were preceded by venesection, so as to secure a greater degree of dilution of the blood with a comparatively small amount of the diluent. The practice of saline injections in diabetic coma has, as Dr. S. Mackenzie remarked, been frequently employed, but in no case with permanent good results. Indeed, few patients submitted to this treatment have, as in Dr. Dickinson's case, regained consciousness even for a short time.—*Lancet*, March 8, 1890.

Operation under Hypnotism.

In the *Medical Record*, January 4, 1890, Dr. Edward L. Wood, of Minneapolis, Minn., gives the following interesting story of a very remarkable occurrence. The case occurred in the private practice of Dr. Hugo Toll, of Minneapolis, but came under the personal observation of Dr. Wood. A. S., male, aged seventeen, Scandinavian, entered the hospital September 8, with osteo-myelitis in the upper third of the humerus. There was considerable pain and swelling, some redness, partial immobility of the shoulder and elbow-joints, and three fistular openings, one directly in the axilla, one slightly above the insertion of the deltoid, and the third higher up the arm and more posteriorly situated than the last one. In the three days preceding the operation the patient was hypnotized six times by Dr. Toll, in order to get him under

good control. On the morning of September 9 he was hypnotized in his bed, and then led to the operating-room and caused to lie upon the table. The several fistulæ were then explored, scraped out, and washed out, after which an incision four inches long was made on the outer aspect of the upper third of the arm, to the bone. and an opening three inches long and three-fourths of an inch wide chiselled to the medullary canal with considerable difficulty on account of the osteosclerosis. The work was done under thorough antiseptic precautions. One fistula connected with the incision, and into the other two drainage-tubes were inserted, the recent wound was packed with iodoform gauze, and dressings were applied with great ease, as the patient, while still cataleptic, could turn from side to side, move about, or sit up, as we directed him. At 9.50 A. M. he was led to his bed, and told that at twelve o'clock he could sit up and have something to eat, the nurses, meanwhile, being cautioned not to disturb him. He lay perfectly quiet until that time, and at twelve o'clock, sharp, sat up in bed, stretched his well arm, and said, "Dr. Toll said I could have something to eat at twelve o'clock."

Amputation above the elbow would certainly not have been more painful than this operation, yet the hypnotic condition was preserved through it all, with a loss to the operator of not more than a minute and a half, all told. Dr. Wood has seen several minor operations done with the patient in a cataleptic condition, but he says—and no wonder—that this case was a revelation to him, as he thinks it will be to many of his fellow-practitioners.

Operations on the Prostate.

Dr. W. T. Belfield, 612 Opera House Building, Chicago, is engaged in collecting, for publication, cases of operation upon the prostate, particularly those for the palliation or cure of the so-called prostatic hypertrophy. He requests information concerning cases in which the operations named below, or others designed to secure the same result, have been performed. If already published, a simple reference to the periodical will enable him to secure the information; concerning unpublished cases, he would be thankful for the following items:

Date; age of patient; previous use of catheter; complications (stone, etc.); nature of operation; immediate result; subsequent history; operator (reporter).

The operations about which information is requested are:

1. Supra-pubic prostatectomy.
2. Perineal prostatotomy.
3. Mercier's or Bottini's operation.
4. Incidental removal of portions of prostate in operations for stone, etc.
5. Institution of artificial urinary channel in cases of prostatic obstruction.
6. Operations for malignant or tubercular disease of prostate or bladder.
7. Operations on seminal vesicles.
8. If supra-pubic operation, whether bladder wound was left open or sutured; whether special incision for drainage was made; to what extent bladder was distended or distensible; whether rectal bag was used; whether peritoneum was injured.

The source of information will in every instance be printed.

Nervous Affections in Whooping-Cough.

Dr. Troitski gives, in a Russian journal, a short summary of three cases of whooping-cough accompanied by mental disturbances, difficulty in or loss of speech, and loss of power, or even paralysis, of certain groups of muscles. The first case was that of a little girl two years old, who, during an attack of whooping-cough, complicated by bronchitis, was seized after some paroxysms by distortion of the eyes, blindness and contraction of the arm flexors, quiet delirium and widely-distended pupils, Cheyne-Stokes breathing, diminution of the patellar reflex and of the sense of touch and of pain. At another time she became unconscious, and there were clonic contraction of the facial muscles and staring eyes, the pupils being dilated and not insensitive to light. Soon afterwards a general eclamptic condition with Cheyne-Stokes phenomena came on, the attack lasting for an hour and a half, and giving place to stupor which lasted twelve hours, and during which the child could see, but did not understand, and called things and people by wrong names. These attacks gradually diminished, and in two months she was convalescent. The second case was that of a boy three years and a half old, who had severe headache and difficulty in thinking and speaking during the fourth

and fifth weeks of the whooping-cough, which was complicated by pneumonia. His speech returned after three months, the whooping-cough lasting eight weeks. The hearing was much impaired. The third case was that of a little girl of seven months old, who in the fifth week of her illness had two eclamptic attacks; and in the sixth week impairment of power in the right arm, the deltoid being especially affected. The arm became quite paralyzed after a fit of coughing. Dr. Troitski saw the child again after three months; the paralysis of the arm had disappeared without any treatment, the attacks of coughing having ceased when the arm became powerless. He considers that these conditions were due to disturbance of the circulation, and through that to morbid changes in some part of the brain.—*Lancet*, March 8, 1890.

Preliminary Medical Education.

The *Medical Record*, Feb. 22, 1890, in speaking of the importance of preliminary medical education, says that parents in deciding about the education of a son have to consider not only how to make him the best "medicine-man" and pill distributor, but also how to make him learned, wise, discreet, self-contained, capable of dealing practically with all kinds of people, and also of enjoying a little of the higher intellectual life. The art of medicine depends quite as much on knowing how to meet and handle men as on knowing how to prescribe drugs. The worst physicians are those whose minds from early and immature age have been steadily crammed with technical knowledge, until they see nothing except through ophthalmoscopes, or laryngoscopes, or microscopes, and hear nothing except with the ear to the chest.

Medical success is not dependent on college education nor do we mean to discourage at all those who have not been able to secure it. Some do not need it or are even injured by it. But it is a preliminary education which it is advisable always to try and obtain. And observation shows that there is an increasing desire to obtain it.

Incubation of Measles.

Dr. James A. Myrtle, of Harrogate, writing to the *British Med. Journal*, Feb. 1, 1890, says: "In a young ladies' school with thirty-five resident scholars, a case of measles occurred; the girl was at once removed to a cottage in the rear of the dwelling house, complete isolation secured, a nurse put in charge and all communication cut off. In twelve days the patient and nurse were sent away, and the cottage and everything in it thoroughly disinfected. Exactly fourteen days after this girl showed the disease, a second case occurred; fourteen days after that a third, fourteen days after that a fourth, and fourteen days after that a fifth. Nos. 1, 2, 3 and 5 belonged to different classes, and slept in different rooms; Nos. 1 and 4 were sisters, and slept together; but No. 4 showed the disease eight weeks after her sister. Each case as soon as it declared itself was removed to the hospital. The outbreak in the first instance was supposed to have been caused by infection when away from school, but that is by no means certain, as measles was prevalent in the district. Comment on these clinical records is needless."

Orthin.

Orthin is the designation of another new antipyretic, an orthohydrazin-paraoxybenzoic acid. Prof. Dr. Kobert found by experiments on animals that the muriate salt reduced the fever temperature considerably, and exerted no harmful effect. Dr. Unverricht hereupon employed the preparation in general practice, administering in doses of 4 to 8 grains, but found the effect very unreliable, and accompanied by such unpleasant side-effects that all hope of employing orthin as an antipyretic was abandoned. It was then tried for analgesic properties, and by virtue of its reducing effect in psoriasis, but no advantages could be established over other similar remedies. Both Dr. Kobert and Dr. Unverricht combine in cautioning against further use of orthin.—*Notes on New Remedies*, February, 1890.

Pasteur Institute at Buda-Pesth.

The *Deutsche Medizinal-Zeitung*, March 31, 1890, announces the proposed establishment in Buda-Pesth of a Pasteur institute—as it is convenient to call places where the method of Pasteur for prevention of hydrophobia is systematically practiced. The institute is intended also for the study of protective inoculations in general. The chief officer will be Professor Höyges.

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The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

PRACTICAL POINTS IN THE TREATMENT OF SYPHILIS.

Almost every practitioner of medicine believes that there are at least two diseases which he knows how to treat—intermittent malarial fever and syphilis. To the first, quinine is to be given, and to the second, mercury. It is true that the remedies named are the most important curative agents in these two diseases; but it may surprise the unskilful to learn how much better results can be obtained by adapting the drug to each case, both as regards the time and the way of administering it. Dr. R. W. Taylor, who has had a very large experience in the treatment of syphilis, both in hospital and also in private practice, points out, in a communication to the *Medical News*, December 7, 1889, that most observers have for years been endeavoring so to modify and perfect the administration of mercury in syphilis that all its beneficial effects may be obtained and its deleterious results avoided. The day is long past when intelligent men think it necessary to use mercury to the point of salivation; but there are a large number who still adhere to the practice of "just touching the gums" when they are treating a patient in the early stage of secondary syphilis. Dr. Taylor holds, with many others, that it is vastly better to give it in comparatively small doses and over long periods of time, than to attempt to cure the disease by giving large doses for a few months.

As regards the abortive treatment of syphilis, either by excision or cauterization of the chancre, Dr. Taylor declares it to be an utter failure. He would abandon these operations as prophylactic measures, and employ them only when special conditions rendered them advisable. His opinion on this matter is entitled to considerable weight, for he says he has tried excision extensively over a long period of time, with painstaking attention to details, but he is convinced of its failure, even in cases apparently very suitable to it. Moreover, he is scarcely more partial to the practice advocated by Mr. Jonathan Hutchinson, *i. e.*, the administration of mercury as early as possible in the primary stage—in other words, as soon as the diagnosis of syphilis is made. Dr. Taylor thinks that when given in this stage it tends to render the course of the disease less orderly; very often leaves the existence of syphilis in doubt; does not prevent or lessen the severity of secondary symptoms, and, though it may retard them, it really often renders them more severe.

The best time to administer mercury, according to Dr. Taylor, is when secondary manifestations have appeared, when the newly-formed, young, round, infecting cells are proliferated in vast quantities and are thrown into the general circulation, and by it carried throughout the body. When this has occurred syphilis may be said to be "ripe."

At this time, and not till then, we have something to treat, and it should be treated by interrupted courses of mercury alone at first, and afterwards with iodide of potash; in preference to giving it continuously, or only when symptoms appear. Mercury may be given by the mouth; endermically, by inunctions of soaps or ointments and fumigations; and hypodermically. All these methods of administration have their advantages. In giving it by the mouth, Dr. Taylor prefers the green iodide, and next to it, the tannate. The amount which may be given to each patient varies; but tolerance is very largely dependent upon the condition of the stomach, the pharynx and of the mouth; if these can be kept in perfect order, in the vast majority of cases mercury can be given in such quantities that eradication of syphilis may result. The author is careful to insist upon the importance of keeping the mouth and gastro-intestinal tube in perfect condition, and that all sources of irritation should be prevented or removed. It is well to begin, he says, with a pill or tablet containing one-fourth or one-fifth of a grain of the green iodide of mercury, for persons of ordinary build, but to persons very large and robust, one-third or one-half a grain may be given. This dose may be taken three times a day, and then, if the symptoms do not yield (assuming that there is much constitutional reaction), if the lesions do not show signs of involution, and if the ganglia do not perceptibly subside, a fourth and even a fifth dose may be given within the twenty-four hours. The first course of mercurial treatment should last for at least three months, and, if possible, for four or five. In most cases, at the end of this time, the patient's condition will justify stopping the mercury for from one to three weeks. The next course, Dr. Taylor says, may last from two to five and a-half months, and be followed by freedom from drug taking for four weeks. The mercury may then be resumed and taken for the same length of time. During the second year he is accustomed to combine iodide of potash with the mercury, using either the bichloride or the biniodide. During this second year, all things being favorable, the intervals between the courses may be lengthened, though a full dose of the combined drugs should be given when treatment is used.

Mercurial inunctions are employed by Dr. Taylor for the erythematous and papular eruptions of secondary syphilis, and also for the enlarged lymphatic glands. He gives it as a valuable rule, never to be content with the action of mercurial pills unless there is a decidedly rapid subsidence of the glands. Unusually large, infiltrated syphilitic glands are signs of evil omen, and, as a very general rule, it may be said that they require active, local treatment. Dr. Taylor also employs inunctions in appropriate cases of early and late syphilitic meningeal and cerebral disease, in the headaches of the early and late periods, in the neuralgias of the cranial nerves and in syphilitic neuralgias in general.

In giving mercury by hypodermic injection, he prefers a solution of the bichloride in water. Treatment should be begun with a solution containing one-twelfth of a grain in each ten drops. These injections will cause the rapid subsidence of specific lymphatic swellings, and the disappearance of localized eruptions. This is an important point to remember when the eruption occupies a conspicuous position such as the face, forehead, neck or hand. Injections very often relieve promptly the headaches and various neuroses of syphilis. They afford one also a way of giving mercury successfully where, as sometimes happens, mercury given by the stomach is depressing. In eye troubles they are beneficial, and in threatening cases of grave intra-ocular trouble, the author states that marvelous results sometimes follow the regional injection of calomel. Moreover, sublimate injections are often of much benefit in osseous, bursal, fascial and articular lesions of syphilis,

especially the earlier ones. In such cases, however, it is well to administer at the same time iodide of potash in full and increasing doses.

It will be clear, from what has been said, that the modern treatment of syphilis by an expert is a great deal more than the mere routine administration of mercury by the mouth in such doses as the patient bears best. Mercury is still the sheet-anchor of the treatment; but we have learned to use it more skilfully to obtain more of its therapeutic powers and fewer of its toxic effects. Doubtless improvements in the treatment of syphilis still will be made constantly; but such great ones have been made already that the knowledge of the chief remedy employed is only the very beginning of successful treatment.

NONA.

The REPORTER, April 12, 1890, contained a news item relating to an epidemic disease, the principal feature of which was prolonged sleep, that has recently made its appearance in Germany, several cases having occurred in the province of Hesse. The disease is called nona, and at first was thought to be a new one. The victims sink into a prolonged sleep, lasting for several days, and finally terminating in death. Marked evidences of pneumonia are observed at the same time.

The peculiar character of this disease will be best understood from the history of a case, which is reported by Dr. Braun, of Bolkenhain, in the *Deutsche Medicinische Wochenschrift*, March 27, 1890. The patient, a girl fourteen years old, was suddenly seized with severe headache accompanied with high fever. Great drowsiness soon overcame the child, and she fell into a deep sleep. If aroused, she would stare vacantly about her. She did not speak, and seemed not to recognize any one, and if let alone would immediately fall asleep again. On examination the pupils were found to be dilated, and they reacted but sluggishly to the light. The color of the lips and face was decidedly cyanotic; the tongue was dry and covered with a blackish coat; the respirations were rapid, but regular; the pulse was 110 in the minute. The temperature was very high, and there was perfuse perspiration. Urine and feces were voided unconsciously. The child had a stiff neck, and if her head was moved forward she gave evidences of pain. There was no paralysis. An extensive pneumonic infiltration of the middle and lower lobes of the right lung was found. The case was clearly one of pneumonia, combined with cerebro-spinal meningitis. The presence of meningitis and the involvement of the sensory centres accounted for the absence of cough and symptoms of pain in the chest.

When the patient was seen by Dr. Braun, the pneumonic crisis had been reached, and the chest symptoms soon began to improve. The meningitis did not improve. The child's condition became more and more alarming; there was no sign of returning consciousness; convulsions became frequent; and in six days after the first appearance of the disease the child was dead.

In view of the most recent researches in the etiology of pneumonia and cerebro-spinal meningitis, the disease "nona," as illustrated in the above case, is most interesting. In nona, pneumonia and meningitis occur simultaneously. At first the meningitis symptoms are most prominent, and completely mask the pulmonary condition, until the latter is well developed. Recent bacteriological researches indicate a close connection between these two diseases; the pneumococcus having been found in cases of cerebro-spinal meningitis as well as in pneumonia.

As the number of cases of inflammation of the lungs in Germany has been very great since the recent epidemic of influenza, the theory has been advanced that the present outbreak of nona may be due to the poison of influenza. Nona cannot be regarded as a new disease; but is a combination of two

known ones. The most active treatment exerts no apparent effect upon the course of the disease, a fatal issue having occurred in all the cases reported.

PRESCRIPTION WRITING.

The trial of a case of homicide has recently been concluded in the Paris courts, after having lasted for nineteen months. The facts of the case were briefly as follows: A druggist's apprentice, in putting up a physician's prescription, dispensed hydrochlorate of morphine, instead of hydrochlorate of ammonia. A child, two and a-half years old, was given the medicine and died. The testimony of experts was brought to bear upon the case, and it was finally proved that the child died from the ingestion of nearly half a grain of morphine. It was also shown that this drug had not been prescribed by the attending physician. A verdict of guilty was therefore rendered against the apprentice and he was sentenced to fifteen days imprisonment and a fine of two hundred francs; while the druggist was ordered to pay five thousand francs damages.

Our own country is by no means exempt from similar accidents, and cases in which a druggist's misunderstanding of a physician's prescription has been followed by disastrous results occur only too frequently. A large proportion of the profession seem to make a point of writing their prescriptions as illegibly as possible. The names of drugs are frequently abbreviated almost beyond recognition, and the quantities and directions are most ambiguous. Pharmaceutical journals frequently contain puzzles, in the shape of illegible prescriptions, which often defy interpretation.

The *Journal de Médicine*, of Paris, March 16, 1890, in commenting upon the case mentioned above, suggests certain rules which it would be well for physicians in this country, as well as in France, to conscientiously adopt. They read as follows:

1. Physicians should always write their prescriptions very plainly and legibly.

2. The names and doses of all toxic drugs should be written out *in full.*

3. Full instructions regarding the exact use of the remedy should be appended to every prescription.

The pharmacist, on his part, should never put up a prescription when there is the least doubt in his mind as to its correctness or meaning; be it either the signification of a single word, or an uncertainty regarding the manner of using the preparations. In all cases of doubt, he should obtain an explicit explanation before proceeding to put up the prescription. In case of an error on the part of the physician, either through inadvertence or ignorance, the pharmacist should refuse to dispense the prescription until the mistake has been corrected. Finally, all druggists would do well never to allow their apprentices or students to put up any prescriptions containing poisonous substances.

BERKS COUNTY MEDICAL SOCIETY.

The Berks County Medical Society held its last meeting at Kutztown, Pa., April 8, 1890, where its members were entertained by Dr. J. S. Trexler, who also delivered an address of welcome. The opening address was delivered by Dr. S. L. Kurtz, of Reading. Dr. E. P. Davis, of the Jefferson Medical College, Philadelphia, read an address on "Infants' Food;" and Dr. John T. Carpenter, of Pottsville, presented a paper on the "Administration of Chloroform." In the evening the Society was entertained at a banquet. The attendance was very good, and included, besides those mentioned above, Dr. W. L. Taylor, of the University of Pennsylvania; Drs. D. J. Dunott and H. B. Beeler, of Harrisburg; Dr. Daniel N. Bertolette, of the United States Navy; Dr. W. Erdman, of Allentown; Drs. Weidman, Reeser, Ermentrout and Rhoads, of Reading, and many others.

The Berks County Medical Society have awakened to new and increased activity of late, its members being anxious for its

standard to be high, and that it should rank among the foremost medical societies of the United States. There is no doubt but their hopes will be realized, for the profession in Berks Co. contains both the talent and energy requisite for the maintenance of a successful Medical Society.

MEDICAL MATTERS IN LOUISIANA.

For some time past the *New Orleans Medical Journal* has been urging, through its editorial columns, the establishment of a Board of Medical Examiners for the State of Louisiana, and the subject will probably come up for discussion at the next meeting of the State Medical Society of Louisiana. The *New Orleans Medical Journal* advocates the establishment of one Board for the entire State, and not one for each county, as there is in Alabama. The Society will probably protest against the present obligation imposed upon physicians to pay for a license to practice.

Book Reviews.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the Reporter.]

MASSAGE AND THE SWEDISH MOVEMENTS; THEIR APPLICATION TO VARIOUS DISEASES OF THE BODY. By Kurre W. Ostrom, Instructor in Massage and Swedish Movements in the Hospital of the University of Pennsylvania and the Philadelphia Polyclinic and College for Graduates in Medicine. Illustrated. 8vo, pp. 97. Philadelphia: P. Blakiston, Son & Co., 1890. Price, 75 cents.

This little book gives, in an admirably clear and concise way, the essential parts of massage and the Swedish movements. Mr. Ostrom follows Mezger in dividing massage into four different manipulations: Effleurage (stroking), friction, pétrissage (kneading), and tapotement (percussion). Each of these manipulations is well illustrated by a clear wood-cut. The author gives the various movements as nine in number: rotation, pressing and shaking, flexion and extension, separating and closing, bending, raising, pulling, turning, and depression and elevation. Each of these movements is briefly described. The concluding portion of the book is taken up with the application of massage and the Swedish movements to various diseases of the body.

As a whole the book can be commended as a praiseworthy attempt to give the principles and practice of massage and the Swedish movements freed from any obscuring technicalities.

THROUGH THE IVORY GATE: STUDIES IN PSYCHOLOGY AND HISTORY. By William W. Ireland, M. D., Edin.; Corresponding Member of the Psychiatric Society of St. Petersburg, and of the New York Medico-Legal Society, etc. 8vo, pp. vii, 311. New York: G. P. Putnam's Sons, 1889. Price, $3.00.

The author states in his preface that the present book was written in prosecution of the views given in a previous book by him—"The Blot on the Brain." He seeks to show that Swedenborg, William Blake, Louis II, of Bavaria, Guiteau, Louis Riel, Gabriel Malagrida, Theodore, of Abyssinia, and Thebaw, King of Burmah, all suffered from some mental derangement: "They were led away by delusions or uncontrollable passions from the right comprehension of things, or the right line of conduct. In figurative language, they were visited by spectres which passed through the Ivory Gate."

The most interesting part of the book, of course, is that devoted to an analysis of Swedenborg's life. Swedenborg's pretensions to supernatural knowledge, the author says, were made in the light of a most sceptical time, the latter half of the eighteenth century. They were advanced in the clearest and most matter-of-fact way, indeed with much repetition in his numerous books, in his letters, and in his recorded conversations. Either Swedenborg was subject to delusions and hallucinations, or his pretensions to commune with the dead, and his claim to announce a new revelation were really founded on truth. To admit the latter, says Mr. Ireland, would entail the admission of a new religion.

The author believes that Swedenborg inherited a neurotic tendency from his father, who was himself a spirit-seer. Illusions or hallucinations seem to have been manifested in his childhood, and even to have been encouraged by his parents. His delusions were due to auto-suggestion coming from his powerful predisposition. The doctrines propounded by him were the result of the speculations of his powerful mind working while still unsubdued by morbid influences; the spirit-seeing and attendant puerilities were the result of hallucinations and delusions formed after his nervous centres had become diseased.

The stories of Louis of Bavaria, and of Guiteau are also very interesting, especially to alienists and psychologists. Doubtless some will take exceptions to certain of Mr. Ireland's deductions, but all must allow that he has written a most entertaining book.

ASTHMA CONSIDERED SPECIALLY IN RELATION TO NASAL DISEASE. By E. Schmiegelow, M. D., Consulting Physician to the Municipal Hospital and Director of the Oto-laryngological Department in the Polyclinic at Copenhagen. 8vo, pp. 90. London: H. K. Lewis, 1890.

The author first gives a brief but also very satisfactory historical review of the theories of asthma that have been held, and then presents in the same way an historical review of the reflex neuroses of the nose. He shows how the tendency, since Hack's publications, to lay chief stress upon the nasal disease in the production of asthma, has been modified gradually. In later years the opinion, he says, has by degrees gained ground that asthma is a disease of the central nervous system which may be excited to action by irritation of some peripheral nerve, as, for example, the branches of the trigeminal nerve distributed to the nasal mucous membrane. In human beings the irritable zone the irritation of which causes respiratory

reflexes, is situated in the anterior end of the inferior and middle turbinated bones and on the septum opposite and in analogous places on the posterior ends. Both zones of irritation are supplied with branches of the trigeminal nerve. The author mentions the experiments of Kratschmer, who examined these zones methodically and succeeded, by the use of irritating vapors, in provoking expiratory spasm of the muscles of respiration. The experiments were so conducted as to prove that the reflex arose from the nose alone, and that it ceased when the trigeminal nerves were cut. In explanation of the fact that no irritants of whatever kind have been able to cause asthma artificially, but only short tonic or clonic contractions of the respiratory muscles, the author suggests that the reason may be a want of predisposition in the central nervous system of the animals experimented upon. Practically, of course, this is equivalent to saying that in the absence of a sufficiently irritable condition of the "asthma centre" in the medulla oblongata the condition of the nose is powerless to provoke asthma. And this appears to be the author's opinion.

Schmiegelow's own experiences regarding the relationship between asthma and disease of the nose are represented by seventy-one cases, which are abstracted and tabulated. These cases of asthma occurred in a total of 653 of diseases of the nose. In the latter, five hundred and fourteen patients had chronic rhinitis, eight per cent. of whom had asthma; and one hundred and thirty-nine had nasal polypi, twenty-two per cent. of whom had asthma. He believes that it is possible in some cases, by suppression of the peripheral irritations, to stop definitely the asthmatic attacks; but that this in many cases first succeeds after a general strengthening treatment aimed at the central nervous complaint has been applied.

Dr. Schmiegelow has written a useful book, which throughout, as far as we can judge, is admirably moderate and just. We heartily commend it to all who are interested in asthma, especially in relation to disease of the nose.

New Remedies and Appliances.

In this department, notice will be given of Remedies, Food Articles, and Instruments or Surgical Appliances of which specimens are sent to the Editor; it will bear the same relation to these articles that the department of Book Reviews now does to books.

Wood-wool Dressings.

We have received from the Hygienic Wood Wool Co., of New York, specimens of a variety of their articles, including the wood wool, wood wool wadding, wood wool tissue, accouchement sheet, menstrual pads, and infants' diapers. In all these the most important feature is the use of finely divided wood as an absorbent material for medical, surgical and hygienic dressings. Ample experience with the material in Germany and Great Britain has shown that wood wool has very great power of absorbing liquids and that it is as safe for the physician to prescribe as it is comfortable for the physician to use. The articles sent us are well made, and abundantly deserve the attention of physicians.

Apparatus for Medication of Respiratory Passages.

Dr. J. H. Moore, of Cincinnati, sends a specimen of his patented apparatus for applying air impregnated with various medicaments to the nasal and naso-pharyngeal cavities. It consists essentially in a bulb, by means of which air is forced through a layer of liquid containing the medicament and then into the cavities to which it is intended to be applied.

The action is simple and calculated to effect the object. The box contains formulæ for use with the apparatus, but some of the ingredients could not possibly be carried out of the solutions in any quantity by the air passing through them.

Notes and Comments.

More Stringent Laws for Public Health.

In an article on the necessity of more stringent laws and stricter enforcement of existing ones for public health, in the *Boston Med. and Surg. Journal*, Feb. 20, 1890, Dr. G. H. M. Rowe says: The wave of advance that in recent years has marked every branch of medicine and surgery, has extended also to the interest of public health. The signs of the times point to better laws, a more intelligent understanding of them, and a greater willingness to accept and assist in their execution. The necessity remains of greater work and further progress. No apology is needed for renewing attention to a subject, to which much consideration has been given. It deserves thoughtful study so long as mortality from preventable causes remains at its present ratio. There has been during the last two years, much discussion by societies that meet in this room, about the various diseases communicable from person to person, and the writer judges that the interest has increased, rather than diminished.

The laws of our own State (Massachusetts) are far from perfect, but, in the main, they are very comprehensive, and if fully enforced as they now stand, would undoubtedly do much to improve the general health, and greatly reduce the death-rate from con-

tagious diseases. No better illustration can be pointed out than the result shown by our local Boards of Health in the enforcement of the laws relating to small-pox. The facts are too well known to require elaboration here as to what has been done in our own city. The laws are most scrupulously enforced on the appearance of a single case. It is taken by force if necessary, and removed not merely to a place of isolation, but to a special hospital, fully and at all times admirably equipped, not only for a single case, but for any number that may reasonably arise. The healthy are separated from the sick, vaccination enforced, the habitation and contents cleansed and fumigated, and unremitting vigilance shown to stamp out the disease at once. Too great credit cannot be given the Health Officers of Boston, for the practical banishment of what has been within twenty-five years a pestilence. During a period of twenty-eight years, more than 3,000 persons died in Massachusetts of small-pox. The yearly totals varied from twelve to as high as 300, with a yearly average of 107. During this time, similar methods were in practice as now prevail in the management of diphtheria and scarlet fever. Under the more intelligent and vigorous methods now existing, the deaths from small-pox during the last five years have been 8, 3, 1, 19 and 3; and the yearly average for the last fifteen years was only 19, or a reduction of 83 per cent. in mortality. If intelligent and efficient methods can be applied to the eradication of one contagious disease, why may they not by elaborative and vigorous enforcement, be accomplished with another, looking zealously to such diseases as have the greatest mortality, and which may be classed under the head of preventable diseases.

A comparison of the health laws of Massachusetts with those of other States shows a wide diversity. In many details they are more or less defective, and are general and insufficient. A general comparison will show that the laws of Massachusetts, New York, Illinois and Michigan lead in excellence. It might be considered a fault that the powers given under the laws are too often permissive and not obligatory. The statutes of Massachusetts make provision for local boards acting under the general supervision and co-operation of the State Board. They grant powers for such boards to carry out general and special laws for the control and suppression of contagious diseases. In a general way, they are sufficient for proper action, but from minor defects they are in too many cases inoperative. While the word "shall" is frequent, the potential "may" occurs too frequently. Many provisions are strongly and imperatively put, but in many cases there is no penalty, and hence may be ineffectual. Moreover, the capacity of the officers constituting the local boards especially in towns, is totally inadequate to carry out the powers placed in their hands. This is further made difficult not only by a want of stamina sufficient to resist social or political pressure for resistance, but by the labor and expense necessary to carry the provisions of the law to their full execution.

The laws and public sentiment concerning small-pox are well defined and adequate, but it must be conceded that there is too much indifference towards other contagious diseases, especially diphtheria and scarlet fever.

In looking at the results accomplished in England, a comparison of methods is naturally suggested, with the endeavor to find why so much more has been accomplished there than at home. Moulding public opinion, enforcement of laws, ways and means by hospitals and special appliances, cannot account for all their success. In examining English methods, the fact prominently presents itself that in cities like Glasgow, Sheffield, Manchester and Birmingham, where good results have been attained, the health officer of the town stands out as the pivotal agency. The Local Board occupies much the same relation to its community as our State Board does to our own State. The functions are general:—to note the interests of health, to make investigations as to disease or epidemics, to advise and to diffuse sanitary information. They have full power co-ordinate with any local boards or health officers, but from the vastness and diversity of the work it must reasonably come to pass that their acts are advisory and general. The local English boards occupy a similar relation to their own cities, proper allowance being made for the difference in organization between an American commonwealth and an English municipality. The English local board having decided upon the policy of action, its appointed health officer becomes the executive. The health officers of the English cities, are, I believe,

invariably medical men, since the duties of such officers are purely those requiring medical knowledge, and that of no mean order. This health officer takes the burden of the work, carries out the policy, and is left with full powers for action. Being selected by reason of his fitness, both for knowledge and executive capacity, perhaps shaping the course of action in the board itself, he is independent to push his work. The work of such officers as Drs. Gairdner or Roberts in Glasgow, shows what may be accomplished by the Executive when placed in the hands of a single-headed commission.

The success under this system naturally suggests the query whether such a policy would not accomplish better results in our own State, than the boards now constituted of three or more members. Municipal reform has for years demanded an executive head free from the constraint of two houses, always varying in complexion and policy. The brief trial given under the new charter has, I believe, received the commendation of the best citizens.

Domestic Filters for Drinking Water.

The *American Analyst*, March 20, 1890, contains an article by P. T. Austen, taken from the *Scientific American*, part of which, we think, well worth reproducing:

During the last few years the subject of water purification has received much attention, and successful methods have been introduced for filtering and purifying water on a large scale. Filtration on a small scale, while successful in many cases, comes, as a rule, under housekeeping, and the success or failure of the method will, therefore, often depend entirely on the operative ability of some domestic. While I do not wish to undervalue any of the excellent small filters now on the market, I desire to explain a simple method by which any housekeeper of average intelligence can make an inexpensive contrivance which will do its work in a way not easily surpassed by any filter that can be bought. It has been known for many years that the addition of a minute amount of alum to a water containing bicarbonate of lime in solution (and most natural waters contain more or less of this substance) will cause the formation of a gelatinous precipitate. This precipitate entangles and collects the suspended matters and germs, forming coagulated or agglomerated masses which are easily removed by simple filtration. Waters containing clay or mud which is so fine that a mechanical filter cannot remove it, when treated with a small amount of alum can be filtered perfectly clear through a coarse filter. The alum thus added is not left in the water, but is removed by the filtration, for its active constituent, the aluminic sulphate, is decomposed and precipitated by the action of the dissolved bicarbonate of lime. This should be well understood, although if a minute amount of alum were left in the water its effect would not be noticeable, and even if present in larger amounts, it would not be at all dangerous. The method of filtration is simple in the extreme. An oil bottle or any long, narrow-necked bottle serves for the filter. Tie around it a string soaked in kerosene, about half an inch from the bottom, set the string on fire, and hold the bottle bottom up. When the string is burnt out, the bottom of the bottle is thrust into cold water. If properly done, this causes the bottom of the bottle to split off evenly. The rim of the glass should now be burred off a little with a round file to remove any sharp edges that may be left. The bottle is then thoroughly cleaned and placed neck downward in a convenient support, as, for instance, through a hole bored in a shelf, or it may be allowed to stand in a wide-mouthed bottle, resting by its shoulders on the rim of the mouth. A small handful of cotton wool is now thoroughly wetted by squeezing it in water, and shreds of it are dropped into the bottle until a layer of about two inches deep has been made. The shreds should be dropped in carefully, so as to distribute them evenly, and not to let them pile up in the middle or at the sides. When enough cotton has been dropped in, a cup or two of water is poured in and the bottle gently tapped. This consolidates the mass and finishes the making of the filter-bed. The amount of alum needed to coagulate the water sufficiently for filtering need not, as a rule, exceed two grains to the gallon, and in many instances may be less, but in certain cases of very dirty waters, such as that of the Mississippi River, the amount of alum may be increased to four or even six grains per gallon. The alum is best kept in a solution of such a strength that a teaspoonful of it will contain a grain. To save trouble, the following prescription will enable one to get enough of the solution put up at any apothecary's to last for a considerable time:

℞ Alum . . . . . 128 grs.
Distilled water . . . . . one pint.

I may add that the expense of this prescription, including the bottle, should not exceed fifteen cents.

The treatment and filtration of the water is best done as follows: A gallon of water is placed in a clean tin pail and two teaspoonfuls of the alum solution are added. It will save time to make, once for all, scratches on the inside of the pail, showing the height of one, two or more gallons of water. It is then well stirred with a clean tin dipper. It is best to keep this pail and dipper for this use alone. They should be kept scrupulously clean and frequently well scoured with sapolio or a similar kind of soap. After mixing, the water is allowed to stand five or ten minutes, and then poured, by means of the dipper, into the filter. It will run through rapidly if the filter-bed has been properly made, and will be as clear as crystal, and not seldom will form an astonishing contrast with the original water. The first half-pint of the water passing through should be rejected. The filtered water may be caught in a pitcher or in any other convenient receptacle. A filter-bed will last a day, but it is not advisable to use it longer. Each day the used filter-bed should be thrown away and a fresh one prepared. The method may, of course, be applied to any of the many filters in use, simply adding to the water to be filtered one or two grains of alum to the gallon. It will be a poor filter, indeed, that will not filter clear after this addition. Of late, attention has been drawn to the latent dangers in ice. It has been found that this apparently harmless and attractive substance may fairly reek with disease germs and filth of all kinds. Unless it is known from whence the ice comes, its use may be more dangerous than the use of water. Ice is sometimes derived from water which no one would think of drinking, as, for instance, from ponds in cemeteries and from rivers in the neighborhood of sewer outlets, and as a result may be indescribably foul. Aside from the danger of germs lurking in ice, there is risk in the indiscreet use of water cooled to an abnormally low temperature, since functional disorders are often caused by the drinking of very cold water. No water is so refreshing as a mountain spring, and one reason of this is that its temperature is just right. It is well to take hints that are given by nature, and the hint that the best temperature of drinking water is about fifty degrees Fahrenheit is a good one, and worth following.

Diagnostic Value of Tolerance of Iodides in Syphilis.

In *L' Union Médicale* for October 31 and November 2, 1889, is to be found an article by Dr. J. William White on the diagnostic value of the tolerance of iodides in syphilis. The paper is a translation and amplification of one on the same subject published by him in this country some months ago. It was read at the French Congress of Dermatologists and Syphilographers held in Paris last August. The assertion of Dr. White, that the presence or absence of iodism is of no diagnostic value in these cases of suspected syphilis in which large doses of iodides are given tentatively seems to have met with the very general endorsement of the profession, including not only the venereal and genito-urinary specialists, to whom Dr. White's paper was more particularly addressed, but also the neurologists and general practitioners. There has undoubtedly been a more or less widespread belief that tolerance of the iodides indicated the existence of syphilis, and if, as it would seem to be the case, this is incorrect, Dr. White has rendered a valuable service to the profession in calling attention to the subject. His position is strongly supported by such men as McCall Anderson, Hyde, Keyes, Otis, Sturgis and others, and would appear to be consistent with both theory and clinical facts.—*University Medical Magazine*, Jan., 1890.

Sanitary Convention.

The fourth State Sanitary Convention of Pennsylvania will be held at Norristown, Pa., May 9 and 10, 1890, under the auspices of the State Board of Health, acting in conjunction with the Board of Health of Norristown.

It is intended that the essays and discussions shall be entirely of a practical and popular character. The object of the Convention will not be scientific research, but the unfolding of the results of such research with clearness and simplicity. It is especially desired that women, on whom so much of the hygiene of the home depends, shall attend. The occasion will be one of especial interest and profit to health officers and municipal authorities, who, it is trusted, will avail themselves of the opportunity.

NEWS.

—Dr. William R. Wilmer, formerly Naval Officer of the Port of Baltimore, died April 25.

—There were nine cases of measles among the immigrants at the Barge Office in New York, April 26. They were all imported on the steamer Teutonic.

—Dr. David Gilbert Adler, a graduate of the Jefferson Medical College in 1889, died in Philadelphia, April 22, at the residence of his father, Dr. John M. Adler.

—The funeral of Mrs. Keziah Halstead, aged 63, a nurse in a number of Southern hospitals during the rebellion, and widow of Dr. Joseph Halstead, of Chicago, took place April 23, at Oceanic, N. J.

—The movement for the establishment of a special training school for nurses in the insane department of the Philadelphia Hospital has taken practical shape, and the school will probably open early in this month.

—A dinner was given at the Hall of the College of Physicians of Philadelphia, April 22, the occasion being the presentation to the college of life-size portraits of Dr. D. Hayes Agnew and Dr. S. Weir Mitchell.

—The twenty-seventh annual commencement of the New York Medical College for Women took place April 22. Following the Dean's address came the administration of the Hippocratic oath to fifteen graduates.

—Dr. Nicholas Senn and Dr. Christian Fenger have been elected regular Professors of Surgery in the Chicago Polyclinic. In addition to clinical work, they will present a special course in abdominal surgery twice yearly.

—Dr. R. S. Marshall, a prominent physician of Pittsburgh, Pa., a graduate of Bellevue Hospital Medical College, in 1874, committed suicide, April 22, by shooting himself in the head. Illness is given by his family as the cause.

—The Ladies' Aid Society of the Building Fund Committee of the Philadelphia Polyclinic and College for Graduates in Medicine gave an afternoon tea, April 22, in the Hotel Stratford, to raise funds for the completion of its new hospital building.

—An epidemic of typhoid fever is said to have broken out in Augustana College, at Rock Island, Illinois. One student has died, and many others and a professor are dangerously ill. Defective sewerage in the main building is said to be the cause, and it is being remedied as quickly as possible.

—The resignation of Professor George W. Miltenberger was accepted April 25 by the faculty of the University of Maryland. He was then unanimously elected Emeritus Professor of Obstetrics and Honorary President of the University. Dr. Miltenberger has been connected with the University of Maryland for fifty years.

—Malignant diphtheria is said to have been recently epidemic in the village of Vining, Minn., which has a population of about 150 persons, nine-tenths of whom were afflicted with the disease. There were twenty deaths between April 1 and April 23, and thirty altogether. The funerals of all the victims have been public and largely attended.

—The Board of Health of Philadelphia, on April 22, directed its Chief Milk Inspector to prosecute seven dealers who were alleged to have continued to sell diluted, skimmed and colored milk in violation of the Act of Assembly, after having been notified of the same. It was resolved to ask City Councils to pass an ordinance to prohibit the sale of adulterated or impure milk.

—The health of Constantinople has, for many months past, been below its average standard. The sanitary appliances introduced in the construction of the houses appear to be deplorably imperfect, and their wretched arrangements are not assisted by an efficient supply of water. As regards external drainage, Constantinople is finely situated, but there are many quarters where the gradient of the sewers is too slight to ensure a rapid outflow.

—The Charity Hospital, of Norristown, Pa., some time ago adopted a provision that the medical staff of the Hospital should be selected from the Montgomery County Medical Society. Subsequently the Hospital Association was appealed to in a petition to rescind the rule so as to admit homœopathic physicians. The matter was formally discussed and attracted general local attention. A committee to which the petition was referred presented a report at a meeting of the Association, April 17, in which they say they are forced to believe that two schools of medicine in a public hospital is impracticable; that it would lead to endless conflict and confusion. They, therefore, declined to recommend any change of rules of the institution, thus debarring homœopaths from practicing there.

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Clinical Lectures.

POLYURIA OF INTERSTITIAL NEPHRITIS.—DIABETES INSIPIDUS.—TUBERCULOSIS OF THE BOWELS.[1]

BY JAMES B. WALKER, M. D.,

PROFESSOR OF THEORY AND PRACTICE OF MEDICINE, WOMEN'S MEDICAL COLLEGE; VISITING PHYSICIAN TO THE PHILADELPHIA HOSPITAL, ETC.

Polyuria of Interstitial Nephritis.

Gentlemen: The first case I wish to show you this morning is a man, sixty years old. His parents both lived to about the age of ninety years. He is Irish by birth, and a sailor by occupation. His health has always been good. He denies any specific history, and has never had any sickness. Twelve years ago he suffered from an hemiplegic attack involving his whole right side, including his face. With this there was aphasia. He has never fully recovered from this attack. For the past six weeks he has had some cough and hemoptysis with some dyspnœa. With this there has been profuse expectoration; his sleep is disturbed; he has lost no flesh. This part of his history, however, has no reference to his actual trouble. He is suffering from polyuria. Here is a record running over a series of days, showing how much urine he has passed. On October 27, 1889, he passed 66 ounces, and from that time on it has varied up to 70 and 80 ounces. The character of his urine is as follows: On February 12, the urine contained no abundant sediment, but on microscopical examination, triple phosphates and some granular débris were found, also a trace of albumin; its reaction was faintly acid. In December it was alkaline in reaction, but with no albumin. On November 28, the specific gravity was 1.008,

[1] Delivered at the Philadelphia Hospital.

triple phosphates and a trace of albumin were found, but no casts; the reaction was alkaline. On October 24, it contained no casts, but a trace of albumin, and a small amount of white sediment; the reaction was neutral. On September 13, hyaline and pale, granular casts were found, with some albumin; the reaction, acid and the specific gravity was 1.010. The first record was taken September 5, when the specific gravity was 1.010, and phosphates and hyaline casts were found, and a decided ring of albumin was produced by the acid test.

The present condition of the case is as follows: The amount of urine voided is greater than normal; it contains no albumin; the specific gravity is below normal. His temperature chart shows an occasional slight amount of fever. Most of the time since August, the amount of urine passed has been over 60 ounces a day. With this is a history of a slight hemiplegic attack involving the whole right side of the body. With such a history in a person 60 years of age, what is the diagnosis to be arrived at? There is no marked atheroma of the surface vessels, the tortuous temporal artery being the only change noticed in the vascular system. That he has fragile vessels, however, is shown by the fact that he has had one attack of hemiplegia.

What, now, is the cause of polyuria? There are two causes. The first of these is a high arterial tension, as seen in cases of interstitial nephritis; the other is a low local tension as seen in polyuria associated with diabetes insipidus where there is a loss of the watery constituents of the blood due to a want of vaso-motor tone in the kidneys, often from centric trouble. In such cases there is no albumin in the urine, which has a very low specific gravity, 1.003 to 1.005; and is associated with incessant thirst, rapid emaciation and dryness of the skin, but no atheromatous vascular changes. This condition is often transient and undergoes rapid improvement, in other cases it is persistent and untractable. Then we have polyuria in diabetes mellitis, where there is a large amount of urine with a high specific gravity, and loaded with sugar. There are other conditions in which it is found, as in acute alcoholism; and in amyloid degeneration of the kidney, where there is a tendency for the blood to leak through the hyaline and modified vascular walls in the kidney. But in the ordinary chronic conditions in which we find increased urination, the condition is one of the three first mentioned.

This patient has had a polyuria since last August, passing nearly twice the normal amount of urine. This is a small amount to pass in diabetes, but it is a large amount in a case of ordinary Bright's disease. Formerly all cases of albuminuria were classified as Bright's disease, but now we recognize the existence of albuminuria from transient causes without any disease of the kidney. Bright's disease includes any alteration of the essential structures of the kidney. These structures are three in number. Thus we have the excretory system, comprising the kidney cells, the parenchyma of the organ. Then we have the vascular system, the vessels which carry the blood to these cells, whose débris constitutes the essential part of the secretion. The third structure is the connective tissue constituting the enclosing capsule. The enveloping capsules of the vessels, and the separating and uniting capsules of the tubules.

Inflammation of the first of these structures constitutes the so-called parenchymatous nephritis, that is, disease of the essential tissues of the organ. Thus pneumonia is a disease of the parenchyma of the lung, and acute yellow atrophy, of the parenchyma of the liver, so this is a disease of the parenchyma of the kidney. Tubular and desquammatic nephritis are synonymous with parenchymatous nephritis. The tendency to desquamation gives rise to the second name, and often there is but very little epithelium left in the tubes. It is also called catarrhal nephritis. This may run a course, pure and simple, with rapid destruction to life or restoration to perfect health.

Then we may have disease beginning in the blood-vessels. Amyloid degeneration is essentially a disease of the blood-vessels. It is seen also in the intestines, liver and spleen, always beginning in the vascular walls. The third form of the disease is where the connective tissue is involved in the inflammation primarily. Some say that we can only have tubular disease as a result of a primary disease of the connective tissue. Two of these forms are nearly always commingled, namely, disease of the tubules and of the capsule. Interstitial or granular nephritis and tubular nephritis are more or less always commingled, except in the rare acute condition I have mentioned above. The case before us presents an interstitial nephritis with a tubular nephritis in a slight degree.

Interstitial nephritis of long duration is absolutely incurable, but amenable to treatment, and the patient may be kept in a fair condition, death resulting from some intercurrent condition, such as uremia, or vascular changes elsewhere, inducing apoplexy. When a patient presents himself, and we find a trace of albumin present in the urine and persisting or recurring, but with no sign of dropsy, we may rest assured it is a case of interstitial nephritis. If we find a history of polyuria, with no dropsy, and no, or but little, albumin, and the urine of a low specific gravity, with a pulse of high tension or cardio-vascular degenerations, we may also set it down as being chiefly a case of interstitial nephritis. These constitute the large majority of cases of Bright's disease. To one case when the parenchyma is chiefly involved there are three to five where the connective tissue chiefly suffers.

The characteristics of this condition are an increased urination due to the influence exerted on the circulatory system by an imperfectly depurated blood. The increased arterial tension results in a polyuria. The kidneys are not doing their work, and some material is retained in the blood, uric acid perhaps, which raises the arterial tension by producing a spasm of the muscles of the arterioles at the termini of the arterial circulation. Hypertrophy of the left ventricle results from the stimulus to development caused by increased effort needed to open the aortic orifice. Many cases of atheroma of the vessels are induced by this condition of the vascular system. The tunica intima is first invaded; it becomes roughened, local clots are formed, emboli result; or partial rupture occurs with the formation of miliary aneurism; or larger aneurisms may be formed; or an actual rupture of the entire vessel takes place, with resulting hemiplegia. These cases are the most amenable to treatment of all the renal cases. We can assist them if we cannot cure them. Whenever albuminuria presents itself the case at once assumes a serious aspect; as this indicates a tubular nephritis in addition. A very small amount of albumin only is capable of changing the case into one of great gravity. If œdema is associated with this, it is probably due to amyloid disease, or to a late change in the interstitial cases.

It is favorable that the patient should void this large amount of urine, and no efforts should be made to stop it. It is well to give him Poland water or Apollinaris or other medicated water in order to further depurate the blood. We thus favor this increased formation of urine.

Diabetes Insipidus.

The next case is one of polyuria also, in which, however, there is no albumin. It has recently arisen in a patient suffering from malaria. Here is a patient presenting attacks of chills associated with fever, especially in the afternoon, and at intervals periods of decided fever. Suddenly he develops polyuria. On February 7 he passed 160 ounces of urine in twelve hours. On Feb. 8, during twenty-four hours he passed 240 ounces. The following days the amounts passed were 180, 220 and 170 ounces. The specific gravity of the urine has been low, 1.004, 1.010, 1.007 and 1.004. The urine has a faint odor, is alkaline, contains no albumin nor sugar, and is almost colorless. Polyuria due to diabetes insipidus differs from polyuria arising from interstitial nephritis in the fact that it is acute and sudden and is usually a transient condition.

This other patient has polyuria also, due to diabetes insipidus. The specific gravity is low, 1.003 or less. It is generally lower than it is in interstitial nephritis. This patient has been suffering from malaria. This is one of the causes of diabetes insipidus. It may also be a cause of interstitial nephritis, however. His skin is not very dry; his tongue is pale, but not dry; he is very thirsty, especially at night. As regards treatment, in simple polyuria ergot has given the best results. We will place this man on from ten to twenty drops of the fluid extract three times a day.

Tuberculosis of the Bowels.

Last week I showed the class a case of disease of the alimentary tract, associated with a diarrhœa which had lasted over a long period. The patient was emaciated and phthisical-looking. His abdomen was slightly tympanitic over the small bowel, that is from the suprapubic region to the umbilicus. The disease had existed about ten months, with from four to nine movements of the bowels per day. Medicine arrested this a little, but had no permanent effect. On account of the fulness in the centre and lower portion of his abdomen we thought that the small bowel suffered most. There was tenderness over the entire abdomen, but especially in the centre. The case seemed to be one of

interitis. We considered the question of tuberculosis of the bowel, but as he had a fever chart with a normal morning temperature we laid aside this thought, but did not discard it altogether, merely not laying much stress upon it. The next day the man died. His abdomen swelled rapidly, and in it were found four quarts of fluid which was not all there when I showed him to you.

The entire alimentary tract from the stomach down was invaded with the disease. In the rectum were large surface ulcers and nodular patches. On the colon were a few ulcers at intervals of a few inches, from the size of a small pin-head up to that of a ten-cent piece, or greater. The salivary glands were not as extensively involved as in chronic dysentery. There was the same deep staining as seen in chronic inflammation of the bowels. In the transverse colon were three large ulcers extending down and into the muscular coat. From here there was no involvement of the colon to any extent until one ulcer was found above the cæcum, and two at the ileo-cæcal valve. The appendix was free at the extremity. The small bowel showed ulcerations all the way along its extent, and closer together than in the large bowel. Considerable hyperemia also existed here. These ulcers all had their long axis in a transverse direction. Their edges were thick and prominent, and surrounded by numbers of small miliary bodies. Numerous clusters of tubercles were found. The peritoneum was thickened and roughened. The valvulæ conniventes were eroded and destroyed where ulcers existed.

This was a very interesting case, illustrating the condition which a week ago we were considering. One feature of the case should have led us to make a diagnosis of tuberculosis, and that was the persistency of the inflammation in the smaller bowel for so long a period. This should always lead us to suspect the presence of tuberculosis where hygienic and medicinal efforts for relief are unavailing.

—Sodium carminate for staining nervous tissues, en masse, in place of the usual borax carmine, alum carmine and Delafield's hæmatoxylin, is advocated by Dr. Geo. A. Piersol in the December, 1889, number of the *Microscopical Journal.* Dr. W. B. Canfield describes the microscopical analysis of urine in the same number of that journal.

REMOVAL OF UTERINE APPENDAGES.[1]

BY E. E. MONTGOMERY, M. D.,

PROFESSOR OF GYNECOLOGY, MEDICO-CHIRURGICAL COLLEGE; OBSTETRICIAN TO THE PHILADELPHIA HOSPITAL.

Gentlemen: This woman is twenty-four years old, unmarried, and has had pain at her menstrual periods for some years, together with menorrhagia. Two months ago she began to suffer severe pain in her right side which she then thought was due to a prolapse of the uterus. Examination, however, does not disclose such a displacement, but the uterine appendages are inflamed, prolapsed and exceedingly tender. One tube is considerably enlarged, quite tortuous and at times gives her great agony. From this she has suffered for years in lifting, straining and violent movements. When we consider the inflammatory condition of these organs and their influence upon the general economy, it is not surprising to find such an individual living the life of an invalid. Both patient and general physician hesitate to accept an operation as the only method of relief; and various procedures have been suggested to provide escape from it. Of these, electricity is probably the most promising; but we cannot see how this agent even will be capable of restoring the functions of tubes which have occluded by lymph exudations which guard the peritoneal cavity from infection with an irritating fluid contained within the tubal sacs. It is difficult to believe that a restoration to normal condition, or even one approaching it, can be accomplished by such measures in a tube the seat of a hydro-, a hemato- or a pyo-salpinx. Therefore, while I thoroughly deprecate any rash or useless operations, yet, as these organs are already diseased beyond recovery, I feel that by their removal I am not uselessly mutilating my patient, but am merely relieving her of organs that are useless—and even worse than useless—painful and dangerous. A pus sac may open through the vagina; but, unless this be kept open, it will recur and bring on the symptoms by which it was previously accompanied. Consequently we do not hesitate to operate on this patient. Her bowels have been thor-

[1] Delivered at the Philadelphia Hospital.

oughly moved and thorough cleanliness has been obtained by washing with soap and water; especially over her abdomen and external genitalia. These parts are now again washed in a bichloride solution. I have the table, upon which are my instruments, close beside me, so that I can reach them as they lie in the pans, covered with plain hot water; and in this way save having to resort to the use of a middle man who might possibly prove a source of sepsis. I cut through the skin and superficial fascia, always trying to strike the linea alba. If, however, I do not cut down on this line, I do not fret about it. I next cut through the other fasciæ and peritoneum with probe-pointed scissors. Introducing two fingers into the wound, I feel for the fundus uteri as a landmark, and, passing outward to the left, a mass is felt which is closely adherent; indeed completely encapsulated. My fingers are passed over this and enucleation made from below upward. As it is brought out you see pus exuding from the Fallopian tube —a clear demonstration of its character and of the importance and necessity of the operation.

I use as small a ligature for the pedicle as will serve the purpose. The ovary and tube are cut away, and, finding that bleeding is securely prevented, the ligatures are cut short.

The opposite side is now investigated, and the right ovary and tube are found adherent and enlarged. Experience has demonstrated that where inflammatory trouble exists in one tube sufficient to require removal, the remaining one will sooner or later develop trouble that will necessitate a repetition of the operation. In the present instance the condition amply justifies removal of the second tube and ovary.

The peritoneal cavity is flushed out with simple hot water, to remove the blood which has oozed from the torn adhesions and to decrease the possibility of infection from the pus tube. The stitches are introduced through all the fasciæ of the abdomen, at about one quarter of an inch apart. They are then tied from below upward, care being taken that the wound surfaces shall be carefully approximated, and the parts antiseptically clean. The wound is dressed with: 1, iodoform and iodoform gauze; 2, dry bi-chloride cotton; 3, burnt cotton; 4, adhesive strips; and finally, 5, a crinoline binder, which is better than flannel, and which is pinned from above downward with safety pins. The pressure of this binder lessens the danger of venous oozing in the abdomen.

The patient is now put in bed, and hot bottles are put to her feet and around her. Later she will be given a limited supply of liquid food by the rectum. Nothing is to be administered by the mouth until the nausea caused by the ether and the handling of the ovaries has ceased. After the first forty-eight hours she will receive by the mouth some liquid food, among the varieties of which I am very partial to bovinine. Avoid the use of morphine, unless the pain be very excruciating. It often has the result, by checking the secretions, of making the temperature go up. If, however, there is an elevation of temperature and signs of peritonitis, I generally give a saline cathartic, in order to deplete the blood-vessels and to clear out the alimentary tract. If there were many adhesions and much pus a drainage-tube should be used, taking care to place it in such position that the lowest portion of the peritoneum can be reached. If necessary, the cavity may be irrigated with hot water or a disinfecting solution every few hours.

In cases of extensive adhesions it is sometimes preferable to keep the abdominal cavity filled with a solution of boro-glyceride. With the cavity filled with the fluid the intestines do not lie in contact continuously, and consequently there is less danger of the formation of unfortunate adhesions. The torn, denuded peritoneum is renewed. This is accomplished by frequent irrigation, permitting the tube to remain filled with fluid.

COMMUNICATIONS.

PATHOLOGY OF TYPHOID FEVER.[1]

BY CHARLES F. J. LEHLBACH, M. D.,
NEWARK, N. J.

Some questions relating to the causation of *typhoid fever* cannot be fully discussed without reference to the pathological anatomy of the disease and to some of the minute histological changes accompanying its progress. In fact these pathological changes stand in direct causative relation to the complexus of symptoms which makes

[1] From a paper read before the Newark, N. J., Medical Association.

up our conception of typhoid fever. On the other hand, the question of what causes these lesions, brings up at once the whole subject of their external cause. Without attempting to give a review of the various controversies that mark the progress of medicine in relation to this disease, it may be stated that typhoid fever, its symptoms and its lesions, are due to the presence of a poison in the system, a poison of a specific nature, which is either generated in the body itself, or introduced from without.

The external origin of the poison is, at present, generally conceded; although it is but fair to state, that up to a time approaching nearly the end of the past half of this century the view that the poison originated within the body was entertained by many eminent observers and medical philosophers.

The most characteristic lesion of typhoid fever consists in the changes in the lymphatic follicles, in the inflammatory enlargement and subsequent degeneration of the solitary glands and Peyer's patches or agminated glands.

To understand fully these changes and some of the influences which will hereafter be made, it may be worth while to glance for a moment at the histological relations of these glands. They are, in the first place, *absorbent* glands in contra-distinction to Brunner's glands and Lieberkühn's follicles, which are organs of secretion of the intestinal fluids. The structure of the solitary glandules and of those forming Peyer's patches is the same. According to Dalton, they have a close relation with the lymphatics of the intestine. The lymphatic vessels coming from the villi form a plexus in the substance of the mucous membrane, from which branches pass to the follicles and ramify over them, forming another plexus upon their investing capsule. Owing to the analogy in structure between these bodies and portions of the lymphatic glands, as well as to the fact that the lacteals from the neighborhood of Peyer's patches are more numerous than those from other points of the intestine, the closed follicles are generally regarded as belonging to the system of the lymphatic glands. They furnish no secretion to the intestinal cavity, but are connected in some way with the elaboration of the absorbed materials. Now the minute changes which take place in the course of the intestinal lesion in typhoid fever are as follows (Delafield & Prudden): "At first the blood-vessels around the follicles are dilated and congested, while the follicles are swollen, and the epithelium falls off. Then the follicles increase largely in size from a growth of new cells. The new cells are, in part, similar to the lymphoid cells, which normally compose the follicles, in part are large, rounded cells, some of which contain several nuclei. The production of new cells is not confined to the follicles, but extends also to the adjacent mucous membrane. In many cases also, little foci of the same cells are found in the muscular, sub-serous and serous coats. This increased number of cells compresses the blood-vessels and the parts become anemic. Soon the cells degenerate either by granular degeneration of individual cells, or by gangrene of part of a follicle. In either case the degenerated portion is eliminated into the intestine, and leaves an ulcer of which the floor and edges are infiltrated with cells. After this the cell-growth goes on, and the ulcer enlarges, or the cells are gradually replaced by connective tissue, and cicatrization follows." You will see phases of this process in the sketches of ulcers handed round, and the actual microscopic sections will be ready for your inspection later on.

In more severe types of the disease the enlargement of the follicles ends in ulceration. This takes place in two ways:

(a) The enlarged follicles often break down, and discharge into the intestine. In this way are formed small ulcers. These ulcers increase in size by the same softening process which gradually attacks their edges, and in this way ulcers of large size may be formed. The ulcers may extend outward only to the peritoneal coat, or they may involve the peritoneal coat also and perforate.

(b) In the severest forms of the disease, considerable portions of the enlarged patches slough, are detached and leave large ulcers with thick, overhanging edges. The slough may involve only the follicles or it may involve also the muscular and peritoneal coats. These ulcers also may afterwards increase in size, and several of them may be joined together. "If the patient recovers, the ulcers cicatrize, their edges become flattened, their floors are converted into connective tissue covered with cylindrical epithelium."

With this description of the process of the main lesion of severer forms of typhoid fever, we can readily understand and explain the various symptoms which it presents: the tympanitis. the meteorism, the gurgling

sound, the tenderness in the right iliac fossa and the peritonitis at times. But in milder forms these abdominal symptoms need not be so marked, and these are the cases which often give rise to doubt as to whether they are really typhoid or not. For—according to the same authors—"if the disease was mild and the enlargement of the follicles moderate, the enlargement gradually disappears and the follicles resume their normal appearance. In moderate enlargements, the retrograde processes affect first the follicles and leave the septa between them still swollen and prominent. This gives to the surface of a patch a reticulated appearance. After a time, however, the entire patch becomes flattened and uniform. . . . The solitary follicles, also, or the separate follicles of a patch soften, break down, and their contents are discharged with some attendant hemorrhage. This leaves a bluish-gray pigmentation in the situation of each follicle. This pigmentation may remain for years."

Thus the cause of so much variation in the gravity of the symptoms of the disease may be readily understood, when we bear in mind the variation in the number of glands affected, the degree of their inflammation, and the succession of the process to rapid healing or to destructive ulceration. The not unfrequent, so-called relapses of the fever—as far as my experience goes—seem to be mainly due to, and to coincide with, the invasion of new glands, with a repetition of the intensity of symptoms.

Leaving the intestinal lesion in its causative relation to the symptoms of the disease, I will now refer to only one more of the pathological changes in the various organs—that of the spleen; and as I intend to draw some inferences therefrom relating to the *external* cause of typhoid fever, I here call attention to the anatomy of the spleen and its vascular arrangements.

"The spleen," says Prudden, in his manual of Normal Histology, "although differing in many important and probably most essential particulars from the lymphatic glands, yet presents many striking analogies with them. Like them it presents on cross-section, to the naked eye, a fibrous envelope—the capsule—from which septa and trabeculæ pass into the organ, enclosing irregular spaces. Here, also, we find the spaces between the septa followed with a soft substance presenting two distinct modes of arrangement; we find first, irregularly scattered through the organ, small grayish globular or elongated structures, called Malpighian bodies, or follicles; and second, between these, filling up the remaining space between the trabeculæ, a soft, red tissue called the pulp. Finally, blood-vessels."

We must notice the fact that the splenic artery is remarkable for its large size in proportion to the size of the organ, and also for its tortuous course. "If," says Prudden, "we carefully study the walls of the smaller arteries, we find that in certain parts they undergo a singular modification: at first the connective tissue sheath and the adventitia become very loose in texture, and their masses become filled with spheroidal cells, resembling lymph-cells—this is called lymphoid infiltration of the walls of the arteries; then we find that at certain points this infiltration becomes quite extensive, the intercellular substance assuming the character of reticular connective tissue; and thus distinct spheroidal or much elongated swellings are formed either around or at one side of the arteries—these are the splenic follicles or Malpighian bodies. The blood, after its exit from the fine arterial twigs on which the Malpighian bodies are found, passes, through the intervention of the capillaries, probably directly into the meshes of the pulp-cords; and after circulating here among the cells, —not in distinctly walled channels—it finally finds its way into the cavernous veins, whence it passes out of the organ through the large efferent veins at the hilus."

Now the spleen in nearly every case of typhoid fever is enlarged. This enlargement begins soon after the commencement of the disease, increases rapidly until the third week, remaining stationary for a few days, and then diminishes. The organ is congested, of a dark-red color, and of firm consistence, while it is increasing in size. After it has reached its maximum size, its consistence becomes soft, and there is a considerable deposit of brown pigment. The enlargement appears to be due to the congestion, and to an increase of the normal elements of the spleen.

There is another anatomical fact in the vascular arrangement of the spleen to which I must allude for later reference. It is the arrangement of the splenic vein in its bearing to the relative rapidity of the flow of blood into the portal vein. It commences by five or six large branches, which return the blood from the substance of the organ. These, uniting, form the main trunk which, passing behind the upper border of the pan-

creas, and receiving gastric, pancreatic and other branches unites with the superior mesenteric vein at nearly a right angle, to form the portal vein. Hence the rapidity of the flow of blood is, in the first place, diminished by the angular meeting of these two currents; and, secondly, the rapidity of the flow is entirely uninfluenced by the direct suction force of the diastolic action of the heart as is the blood of the vena cava. The large inflow of blood, then, through the splenic artery, the largest branch of the cœliac axis, the second given off from the abdominal aorta, with its tortuous circulation through the organ, and its retarded outflow through the portal circulation, form conditions which may have an important bearing upon the presence, movement and elimination of a poison introduced into the blood.

The introduction of so much elementary matter is necessary to connect the links of subsequent argument. How is the poison of typhoid fever, which gives rise to the pathological changes characterizing the disease, introduced into the system? The evidence in the literature of the history of typhoid epidemics or endemics, and in the thousands of accumulated accounts of sporadic cases, is overwhelmingly demonstrative of the fact that the poison of typhoid fever—whatever it may be—is often introduced into the system by means of water used for drinking purposes. And we are not justified in assuming that this introduction, or the contamination of the water is only an accidental concurrence. Chemical examination has failed to discover the nature of the poison in drinking water to which cases of the disease have been clearly attributable. But, in all cases under my own observation, when everything pointed to the introduction of the poison through these means, an ordinary examination by simple tests showed the existence of chlorides and ammonia above what is admissible—a proof not only of contamination by organic decomposition, but a proof also of the greater probability of such water to favor the growth, development, or, at least, the viability of pathogenic germs accidentally introduced into it. "In many instances of infection through the water," says Flint, "it has been possible to show some communication or leakage between a well used for drinking purposes and a privy-vault, cesspool, sewer or drain. Instances of the introduction of the poison by means of milk have been numerous."

During the autumn of 1888 I was forcibly impressed with the possibility of the introduction of the typhoid fever germ in this manner. I was attending a young man, twenty-four years old, suffering with typhoid fever, at Elizabethport, N. J., near the Central R. R. Station. The ground is swampy, well-water is used exclusively by the people living in the street where my patient resided, and goats form part of the domestic household in nearly every family. Numerous cases of typhoid fever had occurred in the street, a number fatal.

Now, on inquiry as to how the dejections of the patients were disposed of, I was told that great care was taken not to contaminate the privies; but that the dejections were emptied and spread over the soil in the lots in the rear of the houses, to which the goats had free access, to pick their food. The germs may lie dormant there even during winter, because, as Prudden has demonstrated by his exhaustive researches, freezing does not kill the germs, and thus, with the thaw of spring and the new grass, the dormant microbes may be called into new life in the goats' intestines, be absorbed into the blood, and carried into the lacteal secretion, and thus keep up the vicious circle of organic poisoning.

My views in regard to the causation of typhoid fever by water contamination have been repeatedly expressed, and also my emphatic condemnation of the use of well-water in this or any other large city, and my firm belief, based upon observations in a practice of over thirty years, that our aqueduct water, derived from a large, quickly-flowing stream, constantly subject to the purifying influence of sunshine and aëration, never has been and never will be the cause of infection by pathogenic germs. I have now in my possession the history of thirty-one cases of typhoid fever treated during the autumn and winter of 1888–89, in the German Hospital, of this city, with names and residences, and this is the resumé: Of the total number—31—there were

drinkers of	
Well-water exclusively,	23
Doubtful,	4
Aqueduct water exclusively,	2
Mixed,	2

I need not extend my remarks in this direction. If there is anything certain in the practice of medicine of to-day it is this, that the poison of typhoid fever is not generated in the body *de novo*, but that it is introduced

from without, that it may be introduced in various ways by food or drink, or careless and uncleanly handling of the dejecta of patients, and that it is certain, just to the point of absolute proof, that the poison consists of a germ to which the name *typhoid bacillus* has been given.

I shall leave the discussion and demonstration of the bacillus to more competent hands, but will conclude with a few remarks connecting the doctrine of the microbic cause of typhoid fever with some clinical and pathological facts. It is impossible for us, even after the circle of evidence in support of the bacillar origin of the disease shall have been positively proven to dive down the stomach of a patient and follow the invasion of the bacilli thence onward. But let us, with such light as we possess, follow them in our imagination. We have a patient who has been drinking well-water or ice-water containing the bacillus or the spores (?). His stomach secretion is acid and does not form a favorable settling-place for the microbe. The out-flow of gastric secretion prevents it from finding a lodgment, as do the secretions from the upper portion of the small intestines, including the pancreatic and biliary secretion. In addition, the current of capillary circulation in the mucous follicles here is outward, rather than inward. But as the bacillus passes down into the ilium and cæcum, the current begins to flow inward rather than outward. The patient perhaps has, by some indiscretion in diet, contracted a slight intestinal catarrh, some little local lesion by fruit seeds, or what not, sufficient to abrade or denude, here and there, the upper epithelial covering. The bacillus finds a lodgment in one or the other solitary or agminated gland, and under the most favorable surroundings begins to develop and multiply. Gland after gland becomes involved; and, as the multiplication of bacilli and their spores (?) goes on, the lymphatics become involved and the bacilli are carried on into the general circulation. Up the lymphatic vessels into the thoracic duct, up the vena cava into the heart, through the lungs back to the left side of the heart, into the general circulation, down the abdominal aorta a short distance, when the great current of a large arterial stream carries them through the splenic artery into the spleen. Or, instead of being taken up into the thoracic duct, part may have been carried through the mesenteric glands into the mesenteric veins, and thus first through the portal circulation, there to encounter to some extent the germicidal effect of the bole, as those carried through the lungs are probably largely devitalized by the effect of oxygenation, but a portion are undoubtedly still carried on through the hepatic vein into the vena cava and onward as before until they reach the spleen.

The somewhat detailed allusion to the vascular arrangement of the spleen made above here finds its application. In the first three weeks of the invasion of the typhoid bacilli the spleen enlarges, swells up, sometimes to three or four times its natural size, undergoes a process of hyperplasia of its normal elements, and finally, with recovery, resumes its natural condition, leaving no trace of permanent lesions, except in rare instances. Is there a reason for this? Unfortunately the physiology of the spleen gives us no clue. Let us bear in mind these three facts: that the spleen is the receiver of a relatively large amount of blood which circulates in it with a great deal of sluggishness on account of the tortuosity of its arteries and glandular attachments; that in consequence of the arrangements of the veins and their connection with the portal system, this sluggishness of circulation is not counter-balanced, and lastly, that the spleen, as far as present investigations have resulted, is a favorite repository of the fever bacilli. Shall we look upon the splenic lesion then as simply accidental, or as one in the chain of reaction against the intruding microbes? With the clinical experiences in regard to other diseases of undoubted microbic origin —such as yellow fever, malarial fever, anthrax, etc., in all of which a similar enlargement of the spleen takes place, I have no hesitancy in saying that we have a right to attribute to this organ an active rôle in the series of processes of recovery from typhoid fever. The spleen, to use a homely illustration, is a sort of temporary guard-house, a prison for the transient confinement of the millions of invading poisonous tramps, where they may be either cleansed or starved to death, or experience a gradual jail-delivery, without an opportunity to overrun the commonwealth, and so are rendered comparatively harmless. The spleen I look upon as a trap, wherein the bacilli are caught.

Here speculation ceases and a new light dawns. The stellar worlds that Galileo dreamed of became visible to Herschel, and as the nebulæ are resolved by the great

Lick refractor into individual starry worlds, so speculative philosophy in medicine must submit to the inevitable and yield the sceptre that it swayed for centuries to the new science: to culture tube and Abbé condenser.

EDUCATION IN AMERICA.

BY SAMUEL G. DIXON, M. D.,

PROFESSOR OF HYGIENE IN THE UNIVERSITY OF PENNSYLVANIA.

There is probably no more difficult problem to solve than that of education. It is claimed by some that we have brought the standard up to a higher level than, perhaps, any other country, excepting Germany. But in doing this, have we thoroughly comprehended and grasped the meaning of the word; or, in other words, have we realized all that is meant by it? We may have sent out from our universities, young men thoroughly equipped in their various branches of science or commercial training; able to take their places at the desk, in the laboratory, the law courts or the forum, or at the bedside. But in doing this, have we fulfilled our whole duty to them? I fear not. Something is lacking. What is it?

The answer comes back to us in an ominous form. The records of our criminal courts, the almost daily reports of absconding clerks and defaulting cashiers, physicians convicted of malpractice, physicians accused of improper conduct in the sick-room, men in positions of trust suddenly disappearing, who previously held a high place in their community, who ranked high in the Church and enjoyed the regard and esteem of their neighbors, all these instances furnish us with a sad reply. And yet these men went forth into the world thoroughly trained and competent to perform the duties of their respective callings. Their intellectual training was complete, but something was wanting. What was it? I think the answer simple. There was no moral stamina, and when the hour of temptation came, they simply succumbed and fell down like a house of cards.

That the danger is a great one to our community is not to be questioned—it is open and palpable. How can we counteract it or in other words, how can we with our educational system provide at one and the same time for the moral and intellectual training of the mind? The latter is abundantly provided for, the former is very generally ignored. Home training and home influence are relied upon to afford what our universities fail to supply. These may be good, bad or indifferent, but if they are bad, there is nothing to put in their place.

The most critical period in the life of a boy is when the time comes to go to college or university. He has to rely much on his own resources; and, if his nature be weak and wavering, a hair's breadth may turn it for good or evil. The education of the mind begins at the cradle and ends with the grave. Mr. Gladstone, a few years ago, learned Italian in order to master Dante; but I believe the training of the moral faculties is practically ended at manhood. Impressions formed during childhood and adolescence are indelible, and I firmly believe that the moral impressions received during the first twenty years of a boy's life will ultimately guide him in after life. They may become strengthened and solidified as years go by, but they will not deviate much from the early path.

This brings me to the point I most strongly wish to urge, namely, the great necessity of a high moral tone among those whose duty it is to complete the educations of young men soon to enter into life. To educate we must strive to unfold the higher faculties of our natures; to succeed in this with others we must exhibit such virtues. The university or college student is naturally inclined to look upon his teacher as a model. It is an undeniable fact that tutors frequently indelibly stamp their characteristics upon their students. The leader of any educational institution should be qualified to instil those great principles of moral self-government which lie at the root of every well-regulated character.

In this connection we cannot but call to mind the example of Dr. D. Hayes Agnew, whose life and work will ever stand out as a beacon in the history of medical and moral education. Many of his students were his personal friends and their extraordinary attachment to him was owing to the great moral influence he exercised over them.

Moral and intellectual training must go together, hand in hand. The example must be real, and must consist in the highest performances of the duties of life. But there is a spurious imitation very prevalent, which palms itself off as the genuine thing, about

which I would like to say a word before concluding. Let me illustrate my meaning. Our doctor comes to me and says: "My dear sir, you are killing yourself by excessive drinking, and unless you make up your mind to stop it, you will ruin your constitution and come to an early grave."

We think it over and arrive at the same conclusion and determine to give up drink in order to lengthen our days, and the better to enjoy life. We plume ourselves on having done a meritorious action and receive the congratulations of our friends with much self-complacency. Now if we come to analyze it, this is not a moral act in any sense of the word. We have acted not by the light of any principle of ethics, but simply from an interested motive and an instinct of self-preservation.

But if the doctor says "I earnestly want you to give up drinking, not only because it is impairing your mind and warping your moral nature, but also because it is inflicting a grievous injury on your wife and family, degrading your family name, and causing sorrow to those who love you." Then, if we decide to give up the evil habit, we are acting, not only on moral, but also on religious grounds, of the highest kind.

For the spurious morality we have no use —call it by its right name. It would send out into the world a breed of prigs, however highly cultivated. The real morality will give us a race of Christian gentlemen. It is this real morality that we must have among those entrusted to mold the minds of our young men.

Intellectual cultivation without a corresponding moral culture goes to increase the power of the possessor to execute the mandates of the Devil.

I have not space to pursue this important subject farther, but I trust I have said enough to show the vital importance of a high practical moral example by those connected with educational institutions and who have the oversight of young men and women about to take the first step into the perils and dangers of the world.

—By the light of bacteriological investigation, the problems of ventilation assume a new form, and in the ventilation of rooms we shall soon need to ask whether the greater danger lurks in the so-called impure air of such rooms, or in the germ-laden outside atmosphere which we admit as "pure."

PEROXIDE OF HYDROGEN.

BY CHARLES P. NOBLE, M. D.,
PHILADELPHIA.

The use of this agent in therapeutics by the profession in general has been limited, and the opinion expressed by many concerning its value has been uncertain, or certainly not laudatory. My own experience has convinced me that it is an agent of great value, hence this short communication. I was induced to use peroxide of hydrogen through the recommendation of an aurist who had employed it to cleanse the auditory canal. The first case in which I used it was one of syphilitic rupia. When first seen, the patient, a woman, was covered with sores and crusts, literally from the crown of her head to the soles of her feet. The physician preceding me—the eighth in attendance on the case—had used ointments as an external application. As a result, the woman was greasy from head to foot, her clothing and the bed being in like condition. It was during the heated term, and swarming flies completed as wretched a picture as I ever beheld. I was told that the patient could not be made to eat. And I could not wonder. Daily ablutions, with use of diluted peroxide of hydrogen, to clean the sores and to disintegrate the crusts, together with the application of subnitrate of bismuth as a drying powder, soon changed all this and the patient felt clean once more. This I am satisfied saved her life—she was at death's door—as the internal treatment employed by myself was doubtless the same as given by my predecessors. The sores healed kindly under this treatment with internal administration of ninety grains of iodide of potassium daily.

Since that time I have used freely the peroxide of hydrogen as a cleansing agent. I was especially pleased with its action in a case of fecal fistula, following the removal of a dermoid cyst of the ovary. This fistula was probably caused by the hair from the dermoid cyst having grown into the bowel. No fecal odor was noticed during the operation, but it appeared in the drainage-tube two days later. The amount of fecal discharge was small, but it, of course, infected the drainage-tube tract and excited pelvic peritonitis. The abdominal wall about the incision became brawny and slight sloughing resulted. The discharge was re-

moved from the tube with cotton, on the cotton forceps, and the tube and incision were cleaned with dilute peroxide of hydrogen several times daily. The patient—who was a brave girl—remarked that she had a soda-fountain inside her. And it was indeed remarkable to see the disintegrated discharges bubble out of the drainage-tube and incision. Corrosive sublimate solution was also used sparingly. By keeping the parts clean in this way, the fecal fistula closed after three weeks, and the incision healed excepting at the site of the drainage-tube. The sinus remaining gives no trouble and is fast closing up.

The peroxide has been equally satisfactory in disintegrating the pus in a number of cases of abcesses. No one can appreciate the difference in the cleanliness obtained by washing an abscess with water and that by the peroxide. I have recently used it to irrigate a pleural sac, after evacuating a pyo-pneumo-thorax by a free incision. In three days the stench from the discharge in this case was entirely controlled.

The peroxide had been used pure and dilute—as dilute as one part to six. I feel sure that the peroxide has a wide field of usefulness before it. As a harmless and efficient cleansing agent I know nothing to equal it.

CEPHALHEMATOMA OF THE NEWBORN.

BY STANLEY M. WARD, M. D.,

SCRANTON, PA.

My experience with cephalhematoma has been somewhat unique, if I may judge by what the books say, and by what older physicians, and in some cases, those of large obstetric practice, have told me. Believing, therefore, with the great Chanceller, that every man is a "debtor to his profession," I submit a somewhat detailed account of that experience, at the risk of being criticized for my treatment, and perhaps, too, for my opinion.

No definition is required to explain the meaning of the word "cephalhematoma." Unlike many terms in medicine and other sciences, the term plainly expresses the condition present. Its cause is *sub judice* in a great measure. In the course of this communication an attempt will be made to explain why this is so.

It would seem quite evident to the casual observer that a soft fluctuating tumor on the presenting part of the head of a new-born child was simply the result of pressure, was a "bulge," in fact, of the soft tissues, produced by the other part of the head being squeezed by the uterus. Ellis, writing in 1878, says that it "is often the result of pressure from protracted labor." Other authorities pay little attention to the entire subject, and Ellis himself devotes only ten lines to it in his work, as found in Wood's Library. Parvin, in the *Cyclopædia of the Diseases of Children*, edited by Keating, passes it by as a matter of little consequence, as does also Henoch; so that I am constrained to believe that, by a large number of medical men, the view given above is generally accepted. On the other hand, Virchow gives an elaborate explanation which, if it be correct, stamps cephalhematoma as a diseased condition, the production of which is by no means so simple a matter as has been assumed. He says, "the pericranium grows by proliferation of the inner layers of the periosteum. If, then, the pericranium, through the blood which is poured out, is held apart from the cranium, the bone-producing layers of the periosteum being still thrown off, they cannot reach that part of the bone for which they are intended. Eager, however, to fulfil their office they join themselves to the bone at the border of the tumor where the bone is still attached." It must be evident to any one that Virchow was describing a tumor of far more consequence than a simple œdema or even a hematoma on a child's head. Besides, the tumor under consideration is not always on the presenting part, and has been known to occur in a breech presentation. Judging from the disparity of opinion among authorities as to its importance, and from my own experience, I believe there are two varieties of cephalhematoma: one variety situated between the periosteum and the cranial muscles, which is probably in all cases the result of pressure; the other is a more formidable affair, and is situated between the bone and the periosteum. This variety is, I believe, a matter of more consequence; is an evidence of a constitutional fault, and is never the result of pressure. It is, perhaps, best accounted for by Virchow's hypothesis, and, of course, may be found on almost any part of the child's head; may be double, and the presentation of the child

has nothing to do with it. It would seem as if some observers had mixed these forms and had classed the *caput succedeum* with them, and then concluded that the entire subject was of little consequence—that all tumors on new-born children's heads, excepting cranio-tabes, hernia cerebri and meningocele were only evidences of a hard and difficult passage into this world.

The frequency with which this tumor occurs is stated by McKee, in the Reference Hand-book of the Medical Sciences "to be, so far as can be learned from the statements of authors, 1 to 235 of children born." Dr. Charles Warrington Earle, of Chicago, in a somewhat recent publication, questions the accuracy of these statements, and says cephalhematoma occurs more often. This opinion I, too, hold; for in my personal practice and as an associate with Dr. J. J. Ward, of Ellensville, N. Y., eight cases have occurred. However, practitioners of large obstetric experience, covering ten or more years, have told me that this condition was unknown to them. As before indicated, cephalhematoma is divided into varieties according to the seat of the effusion. Dr. McKee, in the article referred to, says there are four. I do not think anything is gained practically by so many divisions; and I have given only two varieties. Dr. French, of Missouri, in an article which was very helpful to me, appearing in the *Archives of Pediatrics*, March, 1884, gives as varieties the sub-aponeurotic, and the sub-pericranial. I believe a better and more correct name for the second variety would be sub-periosteal. If it be true that the first-named variety is more of a local trouble and produced by local means, then it would follow that it would be, on the whole, the more common form, and, being present at birth, would reach its maximum growth a short time afterwards; while the opposite in every respect would be true of the last named. This happens, I think, in practice.

The diagnosis from other tumors affecting new-born children's heads presents few difficulties. "A soft, elastic, fluctuating tumor, generally painless and situated on one of the cranial bones" (Earle), which, unless exceedingly large, is not particularly noticeable until from eighteen to twenty-four hours after birth and which is surrounded at its base by a ridge of bone—"nature's efforts to repair the injury" (Earle)—is not likely to be mistaken for anything else. The differences existing between the two varieties are the appearance of the sub-aponeurotic form on the presenting part; its great size as compared with the other form; the irregularity of the ridge of bone surrounding it—not always readily found; its irregular form; with its tendency to spread and the discoloration of the skin covering it. Dr. French insists on these and other diagnostic points, and on one other which is perhaps of more practical importance than any of the others, namely, that the sub-aponeurotic—the local form, so to speak—tends to slowly diminish after a week or so, and will usually disappear without treatment in two or three weeks.

Nearly every writer consulted by me recommends the let-alone treatment of cephalhematoma. I think in some instances this is due to the failure to distinguish the different varieties and to confound the tumor with the *caput succedaneum.* This last-named tumor and the sub-aponeurotic form of cephalhematoma will in the great majority of cases disappear with or without discutient lotions, pressure, etc. But I have waited in a case of the other variety over three weeks, using this treatment, with no result. There was not the slightest evidence that the tumor was diminishing. This case had the following history: A male child was born of healthy Irish parents. The mother was a primipara, and an exceedingly large, muscular woman, accustomed all her life to hard manual work. The labor was tedious, but was finally terminated without instruments. On the second day a tumor was discovered on the right parietal bone. It was diagnosticated as a tumor not connected with uterine pressure, but we were ignorant of its exact nature, it being the first one of the kind that the attending physician, Dr. J. J. Ward, or I had ever seen. The author and an elderly practitioner of a large experience, saw it during the second week and failed to diagnosticate it. Treatment with lotions, etc., had been faithfully carried out, with no result. It seemed as if the tumor grew every day; but this is questionable. At the end of three weeks it was as large as a fair-sized orange, regular in shape, and the bony margin was well marked. Yielding to the solicitation of parents, the attending physician, assisted by myself, opened it at the base with a lance. The blood flowed freely, the tumor diminishing in size. The wound was dressed antiseptically, absorbent cotton being used, and a bandage was placed over all. The next day the dressings were soaked with blood, the tumor was nearly as large as

before, and the child was very pale. After renewing the dressings a probe was inserted into the cut to break up possible adhesions, and the dressing was renewed. Twice daily did we dress the wound for a week thereafter, the child in the meantime becoming very weak and anemic; indeed so exsanguinated was he that doubts of his recovery were freely expressed. Finally, two weeks or more having passed, there was no more hemorrhage, and the entire tumor disappeared. The child recovered rapidly, and is now healthy and strong. I think the mistake in this case was, either in not opening the tumor sooner, or if it was deemed necessary to empty it, that we did not use an aspirator, instead of the lance, though then, because of the thickened blood, much trouble would have ensued. In seven more cases—one double—the treatment sketched above has been carried out, but with no such trouble and anxiety. The lance was used in every case at a date varying from the sixth to the twelfth day. In every case but one, the history of which follows, no untoward result followed.

That all these tumors were cephalhematomata admits of little doubt, as the first case was studied very thoroughly, it being an anomaly to all concerned. Again, though no doubt as to the nature of the tumor existed, in order to make assurance doubly sure, in no case was the operation done before the sixth day, and usually it was done later. Any other tumor, except those rare and serious forms about which a mistake is not likely to be made, would have disappeared before that time. Several of the cases were the more common and the less serious cephalhematoma sub-aponeurotica, appeared on the presenting part and had the ridge of bone imperfect. In some cases the covering of the tumor was discolored; in some, even of the sub-aponeurotic form, it was not. In all the same treatment was carried out, as we deemed it innocuous, and as it is very gratifying in its results to the anxious mother who wishes her child to be in a presentable condition at least by the end of the second week. My last case is as follows:

November 26, 1889, I was called to see a German woman, who had been attended in her confinement some days before by a midwife. I found her in a condition of sepsis, produced evidently by the uncleanness of the lacerated external genitals. On the occasion of my fourth or fifth visit, my attention was drawn to the child by the midwife. On examination, I found a male child, to all appearance healthy and well developed; but, occupying the lower part of the right parietal bone, was a tumor. The midwife said she had not noticed it at the child's birth. All the characteristics of a sub-periosteal cephalhematoma were present, and I so diagnosticated it. The next day, the child being twelve (12) days old, I lanced the tumor at its base. A quantity of blood, not enough to hurt the child—which indeed hardly waked from its sleep—came slowly from the cut, and the tumor diminished by degrees. On the next day the child was not feeling well. It was cross and irritable. Some blood had oozed out during the night; but the tumor was about one-quarter its original size. With a probe I opened the wound and carefully pressed out the blood, and dressed the wound with absorbent cotton and applied pressure. On the following day the tumor was gone, but the child was in a bad condition, was listless and inclined to sleep. When roused he moaned and cried a little. Ecchymotic spots now appeared over one side of his face, and part of the chest and the scrotum were greatly enlarged and reddened. In fact, many symptoms of purpura hemorrhagica were present. Two days afterwards he died of exhaustion and inanition. I am not certain that my interference had anything to do with the death; but, if I had never operated before, such an opinion would have appeared very probable to me. It will be noticed that the disaster was not such as the advocates of the "let alone" treatment state will follow interference, at least so far as I know.

These two cases are the only ones of the eight that presented any features worth commenting on. Reasoning from experience and from what we know of the pathology of these tumors I believe, in spite of what many authorities say, that to make a free incision at their base; to gently press them; and finally to dress them with boiled water, applied freely; and to cover them with a roller bandage, is good treatment. Even if convinced that a given tumor is an example of the simplest form—the sub-aponeurotic—if after pressure moderately applied, it should show no signs of disappearance at the end of a week or ten days, I believe the good of the child, certainly the comfort of the mother, would be best secured by the operation described. I think in some cases aspiration would be safer; bulas before sug-

gested, on account of the thickened condition of the blood, especially after the second week, much difficulty would be experienced.

CONSUMPTION RETARDED, IF NOT CURED, BY AN ACCIDENT.

BY JOHN B. CRANDALL, M. D.,
STERLING, ILL.

Mrs. Henry Thomas, 62 years old, a resident of Sterling, was in the second stage of tubercular consumption; had great emaciation, with severe cough, night-sweats, hectic chills, and all the other rational symptoms. This state of affairs was progressing when she met with an accident. She slipped on the sidewalk and fell down, fracturing the right femur. Upon examination, I found introcapsular fracture of the right femur. Mrs. T. was in such a deplorable condition generally I did not put the limb in splints but had an adjustable leather support to steady the limb, so that she could sit up in bed, in order to ease the severe strain and cough. She progressed as well as any case could, so far as the treatment for fracture was concerned. As soon as the deposit of callus on the fractured bone commenced there was marked improvement in her cough, she ceased to have hectic chills, the expectoration became less, and was less tenacious in character, and her general health improved. She gained in weight, and all the symptoms of lung disease were checked.

This coincidence happened more than ten years ago; and the woman has been up and about since, with no recurrence of lung trouble.

In this case, as soon as the deposit of bone began to be thrown out there was a marked improvement in all of the pulmonary symptoms. Whether or not this fact indicates a line of treatment for tubercular phthisis I leave for the philosophers in the profession to determine.

SANTONIN.—The competition among the Russian santonin-makers has continued throughout the past year, and this has led the Chim Kent works again to reduce their price for the article by 25 per cent. The present quotation excludes the possibility of manufacturing santonin profitably in Germany.

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SERVICE OF DR. ROBERT COLTMAN, JR.

Leucoma.

This little girl is twelve years old. At three she was attacked by small-pox in the confluent form, and she is badly pox-marked; but the disease did more than destroy her good looks: it has robbed her of her eyesight. The right eye has suffered most, and is hopeless from straphyloma and a leucomatous cornea. The left eye is almost hopeless, also due to leucoma; but, as there is a clear space of cornea just at its outer margin, I propose to perform an iridectomy, in hope of obtaining at least partial sight. I nearly always use a Beer's knife for the incision of the cornea, and shall do so here. I draw the iris out through this incision, and clip off a good-sized piece close to the cornea. In this case a very large false pupil will do no harm, as it cannot be seen, and a small one might not be sufficient. You observe that the iris remains caught in the lips of the wound. It is important to replace it before it becomes attached in its present position, which it would be sure to do. For this purpose I use the iris forceps, simply pushing the incised surface back into the anterior chamber. The instillation of two drops of an atropia solution (one grain to a fluidounce of water) completes our present treatment of her case. Her eyes we will keep closed for two days, when we shall see her again. I fear the result will be poor, as the cornea has such a very slight area unclouded; but in her desperate condition even a little sight will be a boon.

Psoriasis Capitis.

This boy is fifteen years old. His head looks as if he had a white night-cap on, and his hair has nearly disappeared. This is an unusually bad case of psoriasis capitis. In some places you see large white scales collected into little heaps or hills; these are called "rupioides." When I first came to China I experimented with a number of remedies for the cure of this complaint, with very little success; but now the cases uniformly recover in a very short time. My treatment is: wash thoroughly in warm water each morning; then wipe entirely

dry, and anoint with an ointment composed of equal parts of pix liquida, oleate of mercury (five per cent.) and cosmoline. Internally I give ten-drop doses of syr. ferri iodidi after each meal. We will put this lad upon this treatment, and direct him to return in five days, when I promise you he will present a different appearance. As for the loss of hair, I fear it is permanent. In some of the milder cases the hair follicle does not die, but lies quiescent; and, when the disease is removed, again sprouts a hair; but in a case as severe as the present one the disease is deep-seated and has probably destroyed the hair follicle.

Pterygium.

This man, a farmer, fifty-three years old, comes to us for an operation the second time. You will remember that I operated on him for pterygium a month ago, and, after dissecting back the growth, made a small incision in the conjunctiva at the margin of the lower lid, and, diverting the end of the growth into this incision, fixed it there by one point of suture. This is called transplanting, and is by long odds the best way of treating these cases. But this man, in spite of my injunctions, kept wiping his eyes with a coarse cotton handkerchief, and soon tore out the point of suture, allowing the growth to become free and unattached. This has grown in thickness, and worries him, as it flaps back and forth as he rotates his eyes. I shall simply dissect it back to the inner canthus, excise it, and then touch the stump and bleeding surface with a piece of copper sulphate. This will give him relief for some time, but in a period of from six months to three years the entire growth will probably be reproduced, and will necessitate the transplanting operation again.

Chronic Diarrhœa.

This man, fifty-three years old, is an officer in the Civil Service. He says that three years ago he caught cold near the sea-coast, and that a diarrhœa followed, and has kept up until the present day. At first he had four stools a day; then more; and now he has ten in twenty-four hours, and also some blood in them. The fact that he has very little pain is probably accounted for by the fact that he takes two drachms of opium daily. He is anemic, and somewhat jaundiced. His liver is somewhat enlarged; his heart, lungs and spleen are normal. I find —no matter what is the trouble with an opium-eater—that quinine, or some salt of cinchona, is an important adjunct to the treatment; so I shall prescribe for this man the following:

℞ Cupri sulphatis . . . . . gr. ss
Quiniæ sulphatis . . . . . gr. xii
Ext. taraxici . . . . . gr. xii
M. Ft. pill No. vi.
Sig: One pill three times daily.

He will report at the end of two days. This patient will probably be hard to cure. He will do well for a time, but will relapse because of indiscretions in diet. I shall order him to abstain from everything in the way of food, excepting soft boiled rice and warm milk. He will certainly improve steadily for a time; and he will as certainly add other articles to his diet before he has permission, and delay, if not prevent, his recovery.

Scabies.

This is a sorry-looking group: father, mother, boy, girl and baby. It is not often that all the members of a family have the same complaint, but when it does occur it is probably—as in this instance—the itch. You will notice that the mother, who is the cleanest looking of the lot, has the affection in the lightest degree; while the boy, who is extremely dirty, is a mass of sores.

Itch is always more common at the end of winter, because people crowd together more during cold weather, and wash less. We will suggest to this group of patients that they take a bath, and then anoint themselves with an ointment of two drachms of sublimed sulphur to an ounce of cosmoline. Several repetitions of this process will ensure a cure.

Sugar of Milk.—The fine recrystallized varieties of sugar of milk produced in Northern Germany have been very scarce, while the supply from Switzerland has been forthcoming on a somewhat more liberal scale. The strong demand from the United States for both varieties continues, notwithstanding that there are now facilities existing in the States for the wholesale production of sugar of milk. It is said, however, that neither the grape form nor the crystallized variety of sugar of milk is made in the States, but only a rather unsatisfactory powdered product, which would scarcely be suitable for homœopathic purposes, although it has a very large sale in America.

FOREIGN CORRESPONDENCE.

LETTER FROM PARIS.

Erysipelatous Broncho-Pneumonia without Erysipelas of the Cutaneous Surface.—Treatment of Fractures of the Patella by the Extensive Opening of the Knee-Joint. Excision of the Transverse Process of the Seventh Cervical Vertebra, for Compression of the Bronchial Plexus.—Treatment of Hydarthrous of the Knee.—Surgical Treatment of Club-foot.—The Mixed Diet for Infants at the Paris Maternity.—Treatment of Anthrax.

Dr. Mosny recently presented to the Academy of Medicine of Paris some interesting observations on erysipelatous broncho-pneumonia. This location of erysipelas has been denied for a very long time. In 1879, Dr. Strauss recorded a case of this description, and during the recent epidemic Dr. Mosny came across the following case:

A servant girl who was nursing her master, suffering with facial erysipelas, was taken with pneumonia and died two days later. At the *post-mortem* examination, there was found a very limited area presenting the characteristic appearances of broncho-pneumonia. Bacteriological tests and cultures showed the development of characteristic colonies of the streptococcus of erysipelas, without the admixture of any other micro-organisms; and inoculations have, moreover, demonstrated that this streptococcus was identical, as to its effects, to the streptococcus of erysipelas. The conclusion is that this case was a primary erysipelatous broncho-pneumonia, having not been preceded by any cutaneous or mucous manifestations of erysipelas, nor by any streptococci suppuration.

Dr. Lucas Championnière also presented to the Academy the results of fourteen cases of fractures of the patella which he has treated with the metallic sutures. When the operations were performed immediately after the injury, that is, within the twenty-four hours, the results were much more favorable. The operator opens the knee-joint very broadly, washes it out very carefully, and under the most antiseptic rules, he removes any splinters of bone which may be present, and finally sutures the bone, the patella, by means of very strong silver sutures; two of these, being passed through its substance, are sufficient. Drainage-tubes are inserted so as to enable the neighboring parts of the articulation, which are the seat of effusions, to empty themselves. The limb is then placed, for a period of eight days, in a wire splint, and a simple dressing applied. Never is the articulation rendered absolutely immovable, Dr. Championnière insists on this point. At the end of from twenty to twenty-five days the patient is allowed to begin to walk, when osseous union is already established, as one is unable to find the line of fracture of the bone.

When the operation is performed by any of the several other methods usually employed, the result is not so good; out of five cases, in two cases only did he obtain perfect union between the fragments; in the other, he was unable to bring the fragments close to each other and so he left the silver sutures in position and they gave no trouble.

Dr. Périer presented an interesting case of the excision of the transverse process of the seventh cervical vertebra. The patient, a young man, had been suffering for many years with severe pains in his right arm, accompanied by a very marked atrophy of the same extremity; while at the same time his voice was very much interfered with, which seemed to indicate serious lesions in the laryngeal region.

Upon physical examination a very apparent projection on the right side, above the clavicle, was found, also one on the left side, but less prominent; and the whole neck was enlarged. These projections were the transverse processes of the seventh cervical vertebra, the right one being very much developed; and on a level with it, one could feel the beating of the subclavian artery. The brachial plexus, which was displaced, is also compressed, which accounts for the severe pains, the muscular atrophy, the alteration of the voice due to the compression of the recurrent nerve. The operation was a difficult one, the transverse process was excised, and during this operation the plural cavity was opened, but this accident, after having determined, on the following day, a severe dyspnœa and a sub-cutaneous emphysema developed on account of the introduction of air into this serous cavity, but this disappeared in a few days. The patient was then subjected to electricity, gymnastics, douches, etc., and since then his arm has completely recovered its use, the pains have

disappeared, and the voice has become normal again.

At the Societé de Chirurgie, Dr. Terrillon spoke on the treatment of hydarthrosis of the knee (effusion in the joint), by means of aspiration, and subsequent injections of carbolic acid solution. He presented a young woman, whose knee he had aspirated, and had obtained six hundred grammes of liquid from the joint. The case was one of hydarthrosis of six years' duration, which had rendered the patient absolutely incapable of walking. Five syringefuls of strong carbolic acid solution were injected, altogether 1,300 grammes, to wash out the cavity; and compression was then applied. The patient was discharged as cured at the end of a month. One year after the operation, there was still a little liquid in the joint, but the patient now walks perfectly well.

At the same society, Dr. Lucas Championnière spoke on the treatment of club-foot by extensive excision of the tarsal bones. The principal part of the operation consists in the bony destruction, and especially the extirpation of the astragalus, followed by section of the tendon Achilles. The excision of bones must be sufficient to bring on a complete correction of the deformity. There is no objection in taking away as much bone as necessary, and in one case the author had excised the astragalus, the scaphoid, part of the cuneiform and the cuboid and calcaneum. As to the cutting of the ligaments, they are not of great importance; and the only bone that must not be removed is the external malleolus.

After extensive excisions, the foot is so firm that a containing apparatus is hardly necessary; hence a large removal of both soft and bony parts is to be recommended; moreover, an extensive bony excision greatly helps the union of the soft parts after the operation, and this immediate union is very important for the success of the operation, for we must not rely upon consecutive treatment to complete the reduction; this must be immediately obtained and by operation. The wound heals after one or two antiseptic dressings; the movements of the foot must be commenced early; the patient should be able to walk well at the end of six weeks. At first, Dr. Championnière recommends a boot with lateral splints, to prevent lateral movements and sprains, but later the boot is hardly necessary. Out of eight cases, he has had six perfect successes; the seventh was very slow in walking; and the eighth resulted poorly, which he attributes entirely to not having excised enough bony tissue.

Dr. Berger, out of six cases, has had four attended with perfect results. The two resulting imperfectly were cases where the bony resection had been very limited; while in the four successful ones, the bony excision had been a very extensive one. Dr. Berger insists upon not using drainage and only applies one dressing between the fifteenth and twenty-first day. A plaster-of-Paris splint is placed immediately over large cotton dressings. His patients begin to walk in four and five weeks; later they wear boots but without lateral splints.

At the Paris Maternity, Madame Henry, the midwife-in-chief, gives a mixed diet to infants in the following manner.

The mixed diet is the one to be recommended when a mother is unable to furnish enough milk to her child on account of insufficient secretion; or again, when the financial position of the mother prevents her from keeping a nurse in the house; this mixed diet consists in feeding by the breast in addition to other food. At the Maternity, the hours of feeding are as follows:

8 A. M.—Breast feeding.

11 A. M.—Breast feeding.

1 P. M.—Milk or equal parts of milk and distilled water.

3 P. M.—Breast feeding.

5 P. M.—Milk or equal parts of milk and distilled water.

8 P. M.—Breast feeding.

11 P. M.—Breast feeding.

1 A. M.—Milk or equal parts of milk and distilled water.

3 A. M.—Breast feeding.

5 A. M.—Milk or equal parts of milk and distilled water.

The mixture of equal parts milk and distilled water may be replaced by gruel containing 3 per cent. of sugar of milk.

The milk must always be boiled.

If diarrhœa appears, Madame Henry prescribes the following mixture:

Rum	3 teaspoonfuls.
Water	1 tumblerful.

M. Sig.: Give three or four teaspoonfuls in the twenty-four hours.

If this is not sufficient, the following prescription is used:

℞	Napthol B	gr. j
	Water	f℥jx

M. Sig.: Two or three teaspoonfuls in 24 hours.

Dr. Polaillon, of Paris, treats anthrax, which he considers an essentially microbic disease, by destroying the centre of the lesion; he prefers to the use of the knife, Paquelin's thermo-cautery, or better still, Canquoin's paste (chloride of zinc, ℥jss, wheat flour, ℥jss, water, q. s.) made into a cone and introduced into the tumor, through the suppurating channels. In a few hours the core of the anthrax forms a solid mass, which is separated from the healthy tissues by cauterized tissue, and in a few days the eschar is eliminated, leaving a granulating surface, which heals very rapidly. When the anthrax begins, and there is no existing suppuration, he uses compression and poultices on which a carbolic acid solution or bichloride solution has been placed, using antiseptic water to make the poultice. This treatment is painful to the patient for one, two or three hours, but it rapidly breaks down fever and all other alarming symptoms. Out of 75 cases of anthrax, some of them very large, Dr. Palaillon has obtained 74 cures by cauterization by means of the cones of chloride of zinc. The average duration of the treatment is about twenty-one days.

LETTER FROM LONDON.

Specialists and Abuse of Hospitals.—Signor Zucci.—Prevention of Ophthalmia in Schools.—Dr. Savage on General Paralysis of the Insane.

London, April 5, 1890.

The Easter holidays have fallen in the midst of mild and lovely weather, and the Registrar-General's returns have already shown a sharp fall in respiratory diseases. Still, in a climate like that of Britain, where snows are not unknown in May, one can never be quite sure that the warm weather has come for good. All the world is now flocking to London. The next few months will bring in the harvest of the specialists, who have a comparatively quiet time of it during the winter: at any rate so far as their consulting rooms are concerned. There is never any lack of patients in the special departments of the hospitals; indeed, the complaint is all the other way, that out-patient departments generally are unwieldy and filled by an ever-increasing crowd of applicants for relief.

This question of hospital abuses has at length forced itself upon public attention, and the agitation for reform is assuming more definite lines of action. In the House of Lords it was officially stated that Government would not be averse to the appointment of a Royal Commission of Enquiry into the administration of public charities. The provinces have taken up the subject vigorously. In Birmingham, for instance, the Mayor has formed a committee of investigation having a judge for its chairman; and much discussion has been carried on in the newspapers of that town. In Liverpool the reformers have been especially active, and have issued numberless schemes and resolutions. Then the Charity Organization Society—here, as in America—well-nigh buried beneath the caustic comment that so much of its time was spent on organizing as to leave none for charity, seems to have taken a fresh lease of life, and has convened a large meeting to consider the audit and preparation of accounts of charitable institutions. All these signs of the times show that the question has thoroughly awakened public interest. General practitioners, who have long clamored for reform, will now have to prove their case, and the fear is openly expressed in certain quarters that exact evidence will not be forthcoming. It is one thing to say that well-to-do people get their advice and medicine gratis, but quite another to bring forward clear and formal proof of that assertion. Anyway, it may be confidently hoped that the matter will not be allowed to drop out of sight before being pushed to a satisfactory conclusion. Many people look to an extension of Poor-Law medical relief for a solution of the difficulty, and such a course would be quite in accordance with the modern tendency to apply the rules of political economy to social problems.

Among the holiday sights is Signor Zucci, the fasting man, on view at the Aquarium. He is pledged to fast for sixty days, taking nothing during that time beyond water and an "elixir" of his own composition, which contains no nutriment, but is intended simply to allay the pangs of hunger. His proceedings are carefully watched night and day by a body of journalists and medical men. Among the latter are several residents from the Westminster Hospital, which, as every one knows, is close to the Aquarium. The gentlemen who have thus allowed scientific zeal to outrun their discretion have got well "hauled over the coals" both by the hospital management and by the

medical journals, apparently on the following grounds: Although it is possible that fresh light may be thrown on the chemistry of starvation, and that some value may attach to the fixing of more exact dates of survival, yet hospital officials, on the score of such doubtful benefits, cannot be allowed to play, however unwittingly, into the hands of advertising speculators. Besides, the fasting game has long had its *coup de grâce*. One journal pithily remarks that there are plenty of starving men to be seen any day without paying a shilling a head for the sight.

The personalty of the late Sir William Gull has been sworn under £350,000. There is, in addition, a large real estate, bringing up the total sum to very big figures. As may readily be imagined, the bulk of this vast fortune was acquired outside the practice of the profession. The singular absence of charitable bequests has been made the subject of comment in some of the medical papers.

An interesting advance has been made in the treatment of ophthalmia in pauper schools. The Central London District has an extensive educational institution in the outlying suburb of Hanwell. Ever since the foundation of the school—now more than twenty years ago—there has been repeated outbreaks of the disease, which have never been altogether absent from the place. During that prolonged period reports have been made by experts from time to time, strongly condemnatory of the buildings and also of the methods of treatment. Towards the end of last year the matter was taken up warmly by the press, both lay and medical, and it was also made the subject of Parliamentary comment. The history of these proceedings—the twenty years' delay, the slow ripening of opinion, the leverage of the newspapers, and the question in the House, together present a typical picture of how things of that sort are done in England. Slow and steady are the ways of John Bull. However, the Hanwell managers at length took the decisive step of appointing Mr. Sydney Stephenson, an eye-surgeon who had before stamped out an epidemic of a similar nature at West Norwood, to the sole charge of ophthalmic cases. The next requirement was the erection of new buildings. This has now been done at a cost of £30,000—a mere trifle when one reflects that the ratable value of the City of London, which along with the parish of St. Saviour's, Southwark, makes up the Central District, is no less than four millions sterling. Details of construction have been arranged in accordance with modern knowledge. Although scientific men have not proved the exact causation of ophthalmia, yet it is an accepted axiom that isolation, prolonged and thorough, is a *sine quâ non* of its successful treatment. In isolation, therefore, lies the key to the new buildings. Washing is on the "jet" system, by which each patient washes in a separate stream of running water. The baths are of spray, turned on by the child's weight; a plan that reduces the risks of infection and saves water. The most novel feature, however, lies in the fact that isolation, medical treatment, and schooling will be carried on at one and the same time. This is the first departure of the kind in England, although the plan has been tried elsewhere. There can be little doubt that enlightened measures of this kind will eventually banish all existing cases and future epidemics of this pestilent scourge from pauper schools.

Dr. Savage has lately read a valuable paper before the Harveian Society on the warnings of general paralysis of the insane. He regards the malady as a degeneration rather than a specific disease. Speaking broadly, the slave has acquired, with freedom, general paralysis; which, to put it in other words, is a disease of civilization, in direct ratio to the high-pressure life of cities. It is often very difficult to distinguish between causes and early symptoms; for while drink, extravagance, restlessness, and sexual excess may, one or all, start the degeneration, they may, on the other hand, simply show loss of self-control. The bearing of early motor changes, such as fatigue and resulting indecision is pointed out; and of ataxic changes with muscular defects of the hands and tongue, blurring of the features, aphasia and altered handwriting. Sensory warnings include neuralgia, sciatica, headaches and rheumatic pains; with defects of special senses. Among intellectual changes are: want of social accommodation and such faults as stupid stealing and thoughtless indecency. And the curious point is that patients get drunk easily, and cannot resist poisons.

D. W.

—Tinned cherries have given rise to symptoms of poisoning, which Dr. A. P. Luff and Mr. G. H. Metcalfe have traced to the presence of malate of tin.

PERISCOPE.

Prejudices about Foods.

In his address before the Chemical Society of Washington last January, Mr. Edgar Richards called attention to the objections some people have to food liked by others.

A large proportion of the articles suitable for food and produced in all countries, he said, is wasted annually because of people's prejudice against them. The old saws, "What is one man's meat is another man's poison," and "There is no accounting for taste," are trite, but warranted by the facts. We do not object to eating a live oyster, but prefer all our other meats dead, and undergoing putrefaction to a slight extent, in order to get rid of the "toughness," as it is generally called, produced by the *rigor mortis*. Some people like to let the putrefaction proceed further until the meat is "gamey." The Texan cowboy eats goat's meat in preference to that of the cattle and sheep he is herding. Young puppies, rats, and bird's nests are considered delicacies by the Chinese. Frog's legs and snails are among the highest priced dishes served at Delmonico's. Except the bones and hide, every part of an animal slaughtered for food is eaten by most civilized nations—the brain; tongue; blood in the shape of black pudding and sausages; the liver; heart; lungs; stomach as tripe; the pancreas, thyroid and sublingual glands, which are called sweetbreads, and considered a great delicacy; the feet in the way of jellies, and pickled; the intestines as sausage covering, etc. In the markets of Paris there is a steady demand for horse-flesh as food. The Arabs and other nomadic tribes prefer mare's or camel's to cow's milk. Many people would as soon eat a snake as an eel, yet the latter commands a higher price than most fish in many parts of the world. Lobsters, which are the scavengers of the sea, are eaten by people who would not touch pork. The Eskimo, who eats blubber and other solid fats, and the native of the tropics, who "butters" his bread with a liquid vegetable oil, have the same object in view: viz., to supply a concentrated form of fuel. The squirrel is considered a great delicacy in many parts of this country, but is not eaten in England. The vain efforts of Professor Riley some years ago to induce the starving people of Kansas to eat the food they had at their doors—grasshoppers, sorghum, and millet seeds, and squirrels—himself setting them the example, will be recalled by many present.—*Science*, Feb. 7, 1890.

Damage by Disinfection with Sulphur.

Dr. H. R. Carter, of the U. S. Marine Hospital Service, writes to the *Journal of the American Medical Association*, April 5, 1890, that it is well to know that sulphur burnt in the presence of moisture may have the following undesirable effects: It injures the colors of many woolen goods, being especially hard on greens and bright reds—a red flannel shirt, for instance, always comes out yellow, sometimes the color is not affected; the dark blues are generally absolutely uninjured, but not rarely turned a reddish brown. The same color, of course, may be from very different dyes and thus give different results. The quality of the dye, as judged by the price of the fabric, is no criterion of how it will behave under sulphur. Clothes that have been worn are frequently discolored, when new ones, of the same nature, from the slop chest are but little or not at all affected, doubtless protected by the oil used in weaving, which has not worn off. Dr. Carter has seen but few colored goods, other than woolen, submitted to sulphurous acid gas; in some instances they were bleached.

Articles containing starch, if not washed soon, are corroded—this is especially true of handkerchiefs, etc., and the cloth covers of books. Blankets and hair pillows, which are utterly unsuited to the process—will retain for about a week a smell so disagreeable, in no sense like that of burning sulphur, that they are unpleasant to use. This persists in spite of airing and exposure to the sun, but is immediately removed by washing, or heating in an oven.

Flour in ordinary barrels will not "rise" with yeast for some days after exposure, and this effect penetrates for a considerable distance in the barrel. Tea is ruined permanently, as is ground coffee. The same charge is made of its effect on smoking tobacco.

All metal-work, all save gold, is tarnished, with consequent injury to watches, clocks, etc. Oil prevents this almost entirely. Apples and other fruit become scalded and worthless.

The gas in Dr. Carter's observations was obtained by burning as much sulphur as

possible in the presence of abundant moisture in a compartment more or less close, kept closed for from twenty-four to forty-eight and occasionally seventy-two hours. In general it was not possible to enter the compartment for some time—thirty minutes to an hour—after opening up. Where the apartment is more open less injury would be done and also less efficient disinfection.

Detection of Tubercle Bacilli.

The *Deutsche Medizinal Zeitung*, March 27, 1889, cites the following method for the detection of tubercle bacilli, as devised by Bliesener and described in the *Centralblatt für Bakteriologie*. The sputum is allowed to dry on a microscope cover-glass, and is then passed three times through an alcohol flame. The glass is then laid, with the specimen side up, upon a small tin plate about an inch and one-half square which is fastened to a support about six or seven inches high. With a pipette five or six drops of Ziehl's carbal fuchsin are placed upon the glass, and then the tin is warmed over the flame until first bubbles appear. The flame is now removed, and after a minute the glass is washed with water, and the cover-glass is allowed to float for fifty seconds upon a staining fluid made of

Methylene blue	1.5 parts
Distilled water	100.0 "
Sulphuric acid	25.0 "

After this the specimen is washed with water and is ready to be examined under the microscope.

The Vesicoscope a Source of Error.

A remarkable instance of the way in which even the most skilled are liable to be mistaken in drawing conclusions from physical signs was given in a paper read last week by Mr. Mayo Robson, of Leeds, at the British Gynæcological Society. The urine of a woman who had long been ill was found to be constantly loaded with pus, which, by means of the vesicoscope, was ascertained to come from the left ureter. On the strength of this apparently conclusive indication pyonephrosis was diagnosed, and the kidney was accordingly cut down upon. To the surprise of everybody concerned, this organ was recognized to be perfectly healthy, and a subsequent operation proved that the source of the purulent discharge was a pelvic abscess, which had established a fistulous communication with the left ureter. It is satisfactory to have to report that relief was ultimately afforded, and cicatrization of the abscess cavity obtained.—*Medical Press and Circular*, March 19, 1890.

Hypnal.

Hypnal is a new hypnotic remedy as its name indicates. It is a trichloracetyl, and its full name is dimethylphenylpyrazolon. The drug is obtained by the action of chloral upon antipyrin. It possesses the hypnotic and sedative properties of both its constituents. At the meeting of the Société de Thèrapeutique of Paris, held March 12, and reported in the *Progrès Médical*, March 22, 1890, Dr. Bardet read an account of his experiences with the drug. He gave hypnal in fifteen-grain doses. In twenty-two cases of insomnia sleep was easily induced. Excellent results were obtained with the preparation in the treatment of insomnia incident to pain or cough. Hypnal is free from the taste and caustic quality of chloral, and does not irritate the stomach. It is easily administered, especially to children.

Treatment of Diphtheria.

Dr. Waxham, of Chicago, writing on diphtheria, says that there is no specific for diphtheria, and insists upon clinging to old and well-established methods of treatment. The *frequent* use of iron in full doses, free stimulation, abundance of nourishment, watchful care, antiseptic gargles and washes for the throat and nose, strychnia and digitalis in case of depression, and the bichloride of mercury when the larynx becomes invaded—these remedies, he believes, are our sheet-anchors in the treatment of diphtheria, and no specific remedy can displace them; while isolation, ventilation and disinfection are safeguards that should *never* be omitted.

Oxyuris Vermicularis.— The oxyuris vermicularis is said to promptly disappear with injections per rectum of cod-liver oil, pure or made into an emulsion with the yolk of an egg. It is non-irritating, and is said never to have failed to effect a cure.

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The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

THE PENNSYLVANIA STATE MEDICAL SOCIETY.

It has been unfortunate for the Medical Society of the State of Pennsylvania that two years should elapse between two successive meetings; but this became necessary on account of the unparalleled disaster associated with the name of Johnstown, which visited not only that town but at the same time a wide extent of the State, at the very date appointed for the meeting of the State Medical Society.

The long interval that has elapsed since the Society met in Philadelphia will probably make it harder to get a first-rate meeting this year than it would have been if only the usual interval had come between. It is probable that some men may have lost something of the zeal which they felt a year ago in regard to subjects they were then investigating, and that some of the discussions which were carried over from the Philadelphia meeting will suffer from this long interruption. Nevertheless, we trust that our professional brethren throughout the State will come up to the meeting determined to make it one of the best we have ever had.

It is now time for them to be notifying the Committee of Arrangements of the papers which they mean to read, and the topics they would like to have discussed; and we would urge them to be prompt in doing so.

There are several subjects which are pretty sure to come up for consideration, and the readers of the REPORTER might be preparing for them. Among these we think it safe to name the matter of the law for a State Board of Medical Examiners; the relation of superintendents of State Hospitals for the Insane to the management, and the nature and recent history of hydrophobia.

These and other topics of great practical importance ought to have full and free discussion; and it is to be hoped that some of them, at least, will be advanced to, or near to, definite conclusions. In regard to all of them very diverse opinions are held by different members of the Society, and these opinions ought to be thoroughly discussed, with an earnest determination to arrive at conclusions which shall be true to the demands of the profession and useful to our fellow-men.

In addition to such discussions of public questions, we hope there will be a good number of well considered papers on subjects of theoretical and practical medicine, and that the whole meeting may add to the reputation of the Society and of the physicians of Pennsylvania.

DIAGNOSIS OF FOLLICULAR TONSILLITIS.

At this season of the year, when both diphtheria and follicular tonsillitis are especially common, a physician is often called upon to make a diagnosis between

the two affections. Such a differential diagnosis is confessedly one of great difficulty. It is true that in some cases the physician is not compelled to express an opinion, and then he may keep his doubts to himself and await further developments before coming to a positive conclusion. In the majority of instances, however, he is asked, "What is the matter with the child, Doctor; is it diphtheria?" almost before his examination of the patient is completed. When the one who is thus cornered and compelled to state his opinion is the family oracle, whose patients hang upon his words, an expression of doubt as to the real nature of the case and a desire to delay before giving a decision, will be accepted as equivalent to saying that no one can make a diagnosis, so great is the obscurity. When, however, the practitioner is one less highly esteemed, a suggestion of doubt on his part as to the nature of the throat affection is likely to be met on the part of the family by doubt of the medical man's skill. But, whether he suffer in reputation or not, for his own peace of mind and from his love of scientific accuracy, he will desire to be sure of his diagnosis in every case. Practically, this may be unattainable; nevertheless, if sought for, a nearer approach to it will be made than though the practitioner were content to remain in doubt.

To begin with, it may be said, with a fair degree of accuracy, that follicular tonsillitis is more acute in its onset than diphtheria. In the latter affection, more than in the former, there is likely to be a history of preceding indisposition. The child appears to be ailing, with lassitude, perhaps peevishness, takes less interest in its playthings and has an impaired appetite. At the beginning, a chill, or various creepy, chilly sensations, are more common in follicular tonsillitis than in diphtheria. In the early stages, also, the throat symptoms are more marked in the former than in the latter. The child has some pain in deglutition; at times the degree of pain is far in excess of any manifest local disease. This is especially apt to be the case when influenza is prevalent; in such cases the throat is pale pink and œdematous. The tonsils at this time are seen to be somewhat enlarged, but they do not project beyond the arches of the palate. In a few hours one may be surprised to find that the temperature has risen to 102° or 103° Fahr., the tonsils swollen so as nearly to close the throat, and covered by a layer of thick, cheesy, yellowish-white exudation from the crypts of the tonsils. When they are seen in this condition the diagnosis from diphtheria can be made by remembering the well-known fact that the exudation described is on the tonsil, but not adherent to it; it can, therefore, be brushed off with a camel's-hair throat brush, or wiped off with cotton on an applicator. In diphtheria, on the contrary, the covering of the tonsil is a membrane, is adherent to it, so that in endeavoring to remove it the membrane comes off in pieces or strips and leaves a raw, bleeding surface beneath. Moreover, the color of the diphtheritic membrane is generally grayish, whereas, as stated, the exudation in follicular tonsillitis is generally of a yellowish-white tinge. In a few cases of a milder type, in which the constitutional symptoms also are less pronounced, instead of the characteristic deposit already spoken of there is a thinner, grayish-white layer, closely adherent to the tonsil. It is next to impossible to tell this kind of case from one of diphtheria by the throat symptoms alone. It will be in favor of tonsillitis if the disease developed rapidly following a chill, if the child has had rheumatism or growing pains, or if the other members of the family are inclined to be rheumatic or gouty.

The general aspect of the patient at times helps us to decide the question. The same amount of membrane on the tonsil will, if diphtheritic, produce more evidence of constitutional involvement than is the case in follicular tonsillitis, nothwithstanding the fact that the greater discomfort so far as the throat is concerned is experienced in the

latter affection, there is an indefinable something in the eye and complexion of patients which tells us that they are or are not seriously ill.

The result of treatment is also of value in diagnosis. The use of guaiac locally and internally frequently brings about a very rapid improvement in tonsillitis, but its use has no noticeable effect upon diphtheria.

Albuminuria is more common in diphtheria than in follicular tonsillitis, and this fact may be of service in deciding the question in a doubtful case.

The points of difference between these two affections are not many, and no one of them is sufficient in itself to enable us to make a diagnosis; the entire group of them, however, taken together and applied with calmness and clearness to the diagnosis of a doubtful case, will enable the practitioner to arrive at a satisfactory result in almost, if not quite, every case.

CAMPHORIC ACID.

The medicinal properties of camphoric acid have received but little attention at the hands of even the most recent writers on therapeutics. Biddle and Tidy merely mention it as a derivate of camphor by oxidation. Brunton, Edes, Farquharson and Wood, in their respective works on therapeutics, make no mention of it whatever. Merck's index speaks of its recent introduction into therapeutics, and mentions its use both by inhalation in diseases of the air-passages, and also as a surgical antiseptic.

The acid may be procured by prolonged boiling of nitric acid with camphor; the products of this oxidation being camphoric acid ($C_{10}H_{16}O_4$), and camphoranic acid ($C_9H_{12}O_5$). Attfield, however, gives the formula of camphoric acid as $C_8H_{14}(COOH)_2$.

Fürbringer was the first who called attention to the therapeutic properties of the acid. He classed it among the aromatic acids, and speaks of it as having antiseptic properties. Fürbringer used the acid in typhoid fever and enteritis, but although large doses were exhibited the drug failed to influence the process of the disease in any way.

In cystitis, especially in cases complicated by an ammoniacal decomposition of the urine, the acid checked the fermentation, but had no beneficial influence upon the suppurative process. An unlooked-for action of the drug was observed in tuberculous patients. Fifteen-grain doses exhibited three or four times a day, in most cases caused a complete cessation of the night-sweats. While Fürbringer was conducting his experiments in Vienna, Reichert, in Berlin, was similarly studying the action of this drug, with the view of ascertaining its value in acute and chronic diseases of the mucous membrane of the respiratory tract; also in certain cutaneous affections. Owing to the acid being but slightly soluble in water, a solution in alcohol and water was employed. In catarrh of the mucous membrane of the throat a one-half to two per cent. solution was used as a gargle with favorable results; the duration as well as the intensity of the disease being considerably lessened under its use. In cases of chronic catarrh a six per cent. solution was employed with highly satisfactory results.

Stimulated by these encouraging observations an investigation of the therapeutic qualities of camphoric acid was instituted by Niesel, at the Royal University Hospital of Greifswald, under the guidance of Professor Mosler.

Niesel employed the drug in solution with alcohol and water, as advocated by Reichert, and also in solution with water and glycerine; and finally in an alkaline solution: three parts of bicarbonate of soda to four parts of camphoric acid being used. As the alkaline solution was not stable, but became mouldy, after being kept for any length of time, it was always prepared immediately before its use. The results obtained with the drug were eminently satisfactory.

The most recent experiments with camphoric acid were also conducted in Professor Mosler's clinic in Griefswald, and the results are reported by Dr. Bernhard Hartlieb, in the *Wiener Medicinische Presse*, February 23, 1890. The drug was used in cases of acute and chronic catarrh of the mucous membranes of the respiratory tract; in acute and chronic cystitis; and in the night-sweats accompanying phthisis.

In angina and catarrhal pharyngitis a one-half to one per cent. solution was used as a gargle, and later a solution in glycerine of the same strength was similarly employed. The drug gave great satisfaction, and was very much liked by the patients. After an extensive use in this class of affections, it was apparent that the acid was equal, although perhaps not superior to other known remedies for similar disorders. In laryngitis the same results were obtained. The solution was also used for inhalation in eighteen cases of chronic bronchitis and pulmonary tuberculosis. While no apparent improvement in the objective symptoms of the disease was apparent, the subjective conditions of the patients were greatly improved under its use. The patients, without exception, declared that after the inhalations breathing became much easier, deeper inspiration was possible, and the oppressive feeling in the chest was greatly relieved.

Excellent results were obtained with camphoric acid in the treatment of cystitis. The cases treated were both acute and chronic. Recovery resulted in the chronic cases in from three to six weeks. The acid was used in a one-half per cent. solution; the bladder being washed out with this twice a day. The injections were prepared and given as follows: Ten parts of a twenty per cent. alcoholic solution of camphoric acid were added to four hundred parts of lukewarm water. Of this two syringefuls were injected into the bladder, and allowed to be immediately discharged; a third syringeful of the solution was then injected and retained for about fifteen minutes. When pyelitis existed in connection with cystitis, the drug was administered internally as well as locally. In cases of acute cystitis, where the injections produced considerable irritation, the acid was administered internally only; the dose employed was eight grains three times a day. The treatment proved very effective. It will be observed that the results obtained with camphoric acid in the treatment of cystitis, at the Greifswald clinic, were far more satisfactory than those reported by Fürbringer.

Finally, the acid was used in the treatment of the night-sweats incident to phthisis; and Fürbringer's conclusions regarding the drug's efficacy in this complaint were confirmed. The dose prescribed by Fürbringer was, however, found to be unnecessarily large. In most cases one fifteen-grain dose produced the desired result; in only a few stubborn cases thirty grains were required. The results obtained were eminently satisfactory. In a few cases the night-sweats did not entirely disappear, but were lessened to such an extent as to be no longer inconvenient to the patients.

It may be concluded that camphoric acid is relatively harmless. No gastric or intestinal irritation of any consequence was observed to follow its use. In one case of cystitis, fifteen-grain doses, administered three times a day, caused pain in the region of the kidney, which disappeared as soon as the use of the drug was discontinued. In two other cases of cystitis, when used as an injection, the drug caused a slight and but temporary swelling of the glans penis, which was speedily relieved by the application of lead-water. Still another patient vomited after taking a single dose of thirty grains of the acid; the same patient, however, was able later to take fifteen-grain doses without nausea. In the cases of phthisis in which the drug was employed, fifteen-grain doses were admirably borne; and in many instances this was increased to thirty grains without producing any but encouraging results.

From the foregoing it is evident that in camphoric acid we have a valuable therapeutic agent and one well deserving of a place in works on therapeutics. Camphoric acid is no new drug; yet its properties have been unrecognized until but recently. An important lesson may be drawn from this fact: a lesson which aspiring medical investigators would do well to follow, namely, that it is as important to conscientiously study the properties of already known drugs as to endeavor to invent new ones. The love for novelty is natural, and in the medical profession there is rather a tendency to be too much attracted by the pretensions of new drugs and to forget the value of old ones. In our pharmacopœia there are a large number of officinal drugs, the exact therapeutic properties of which are but slightly known, and which offer encouraging fields for study. We are heartily in sympathy with the profession in Germany, in their encouragement of the investigation of the properties of old and sometimes neglected articles of the materia medica, and we heartily commend the one we have just been discussing to the attention of the readers of the REPORTER.

UNIQUE CÆSAREAN SECTION.

A Cæsarean section of unusual interest was performed in this city, April 27, by Dr. Charles P. Noble, at the Kensington Hospital for women.

One of the most interesting features of the case is the fact that it was the second time that the same woman underwent the operation. She had been delivered two years ago by Dr. Howard A. Kelly, by Cæsarean section, and was the first woman to recover after this operation in Philadelphia, since the celebrated case of Mrs. Reybold, who was operated upon by Prof. Gibson, three generations ago.

As a result of the inflammatory conditions accompanying her first Cæsarean delivery, a utero-abdominal fistula resulted and has never closed permanently. Through this fistula the liquor ammonii discharged and labor came on about the eighth month of pregnancy. This woman is the third in this country who has twice been the subject of Cæsarean section. The case is, perhaps, unique in the existence of a utero-abdominal fistula, complicating pregnancy. The operation just performed consumed one hour, the patient being put to bed without shock, and with a pulse of eighty-four. A feeble, premature, male infant was delivered, which lived four hours.

BOOK REVIEWS.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the REPORTER.]

MODERN SCIENCE AND MODERN THOUGHT. With a supplemental chapter on Gladstone's "Dawn of Creation" and "Proem to Genesis," and on Drummond's "Natural Law in the Spiritual World." By S. LAING. Illustrated. 2 vols., paper cover, pp. 187. New York: The Humboldt Publishing Co. Price, 45 cents.

The success of this book in England has been such that a sixth edition was demanded within a month from the date of first publication. In it the principal results of Modern Science, and the revolutions they have effected in Modern Thought, are concisely presented, with a statement of the results of recent inquiries into the composition and constitution of the earth and of the universe into the nature and laws of matter, the development of organized and animated existences, the history of man, the myths of various races and the religions of various peoples, with discussions of the nature of force, motion, electricity, light and heat. Altogether it is a useful and instructive book and one well worth reading. Its cheap form is a special commendation.

LAPARO-HYSTEROPEXIE CONTRE LE PROLAPSUS UTERIN (NOUVEAU TRAITEMENT CHIRURGICAL DE LA CHUTE DE L' UTERUS). ANTERIOR ABDOMINAL FIXATION OF THE UTERUS. By PAUL DUMORET, Former Interne in Medicine and Surgery of the Paris Hospitals. Illustrated with eight wood-cuts. 8vo, pp. 168. Paris: Office of the *Progrès Médical*, 1889. Price, three francs, fifty centimes.

This thesis contains first a review of the operations hitherto performed for prolapse of the uterus, a criticism of their inadequacy to meet the requirements of the case, and then a description, illustrated with wood-cuts, of the comparatively new operation, fixation of the uterus to the anterior abdominal wall, as recommended by Terrier. The author objects to the term "ventro fixation," frequently used to define this operation, as an abominable combination. The operation of hysteropexy, he says, can be performed in

different ways: by fixing the uterine cornua to the abdominal wall (the procedure of Olshausen), by fixing to the wall the pedicle of an ovary (the procedure of John Phillips); or, finally, by fixing the anterior wall of the uterus to the edges of the incision into the abdomen (the procedure of F. Terrier).

Dumoret's own method of operating approximates closely to those of Lawson Tait, Hennig, Czerny, and especially Leopold, but differs from them in some details. In conclusion, the author says that surgical treatment of prolapse of the uterus is the only effective treatment, that hysteropexy is the preferable method and that while a serious, it is not a grave operation.

Dr. Howard A. Kelly's work in this line receives recognition and consideration, and he is, we believe, the only American writer mentioned. The thesis is an interesting contribution to the surgical treatment of prolapse of the uterus; it will be read with interest by those familiar with the subject.

Literary Notes.

—A life of Dr. Ephraim McDowell, the father of ovariotomy, is about to appear. It is written by his granddaughter, Mrs. Mary Young Ridenbaugh.

—The J. B. Lippincott Company announces that the third volume of the *Cyclopedia of Diseases of Children* will be ready this week. The delay in its appearance has been due to the large number of manuscripts and the elaborate nature of the volume.

Notes and Comments.

William F. Jenks Memorial Prize.

The second triennial prize, of four hundred and fifty dollars, under the deed of trust of Mrs. William F. Jenks, will be awarded to the author of the best essay on "The Symptomatology and Treatment of the Nervous Disorders following the Acute Infectious Diseases of Infancy and Childhood."

The conditions annexed by the founder of this prize are, that the "prize or award must always be for some subject connected with obstetrics, or the diseases of women, or the diseases of children;" and that "the trustees, under this deed for the time being, can, in their discretion, publish the successful essay, or any paper written upon any subject for which they may offer a reward, provided the income in their hands may, in their judgment, be sufficient for that purpose, and the essay or paper be considered by them worthy of publication. If published, the distribution of said essay shall be entirely under the control of said trustees. In case they do not publish the said essay or paper, it shall be the property of the College of Physicians of Philadelphia."

The prize is open for competition to the whole world, but the essay must be the production of a single person. The esssay, which must be written in the English language, or if in a foreign language, accompanied by an English translation, should be sent to the College of Physicians of Philadelphia, Pennsylvania, U. S. A., before January 1, 1892, addressed to Louis Starr, M. D., chairman of the William F. Jenks Prize Committee.

Each essay must be distinguished by a motto, and accompanied by a sealed envelope bearing the same motto and containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay.

The committee will return the unsuccessful essays if reclaimed by their respective writers, or their agents, within one year.

The committee reserves the right not to make an award if no essay submitted is considered worthy of the prize.

Treatment of Whooping-Cough.

Dr. J. F. Purdom, of Mitchellsburg, Ky., has an interesting article in the *American Practitioner and News*, April 12, 1889, in concluding which he says:

Owing to the fact that we are not able to abort pertussis, it occurs to me that the most rational line of treatment we can adopt is that which can be carried out in all cases with the greatest amount of convenience and safety of administration; provided we can obtain thereby favorable results equal to those derived from the use of more dangerous drugs, heroic treatment, or more troublesome forms of administration. And while I have no new remedy to offer in the treatment of the disease, I wish to give my experience with an old drug, the use of which has been and is yet based upon my idea of the pathology of whooping-cough.

The fact being established that pertussis is caused by a specific germ which confines itself to the nasal, throat and respiratory mucous membranes, has not changed in my opinion the fitness of the internal treatment which I have used during the past eight years. The drug which I employ is ergot. I find ergot mentioned by several writers, but the amount given and the frequency of the dose I have not seen stated, neither have

I seen mentioned the object to be attained by its use.

When I have diagnosed the case I prescribe fl. ext. ergot, given in wine or brandy, if objected to in water, every two or four hours, according to the severity of the symptoms; to a child of three months, five-drop doses, and to older children in proportion to age; and, as the urgent symptoms abate, I lessen the dose or extend the time, but continue the ergot until the spasmodic cough has ceased. My confidence in the curative effect of ergot is so settled that I tell the parents that so sure as they give the medicine as directed they will find improvement in the spasmodic cough inside of seventy-two hours. As a palliative in the early stage, I give in conjunction with the ergot a simple cough mixture composed of equal parts syr. ipecac, syr. squills, camphorated tinc. opium, and aromatic spts. ammon., with double the part of syr. tolu; dose according to age, and repeated as necessary to relieve the tenacity of the mucus and give rest at night. I regard it necessary as far as possible to have proper ventilation of the living apartments, with out-door exercise when the weather will permit. The feet should be kept dry and the body clothed with flannel during the course of the disease at all seasons, except the hot months of summer.

With a good, generous diet, I recommend all such hygienic measures as would tend to promote vigorous health. As will be at once seen, I do not claim any specific action for ergot, but believe it relieves congestion of the vessels about the medulla oblongata; also constringing the vessels of the parts invaded by the micro-organism, making the soil less fertile and the tenacious secretions less abundant, thereby making the enemy's stay of shorter duration, and at the same time cutting off his avenues for producing complications by lessening reflex irritability.

I have treated one hundred and three cases of whooping-cough with ergot and a simple cough mixture, and without a death. I have had neither capillary bronchitis, pneumonia, nor convulsions to arise after treatment was begun. Neither has there been any hemorrhage worthy of note. The spasmodic cough has lasted from seven days to four weeks; and there has been seldom a tonic course of treatment required in the stage of decline, as a result of anemia or retarded convalesence.

Distemper in Dogs.

Although dogs enjoy the friendship of man far beyond any other animal, except perhaps the horse (and with elderly ladies the cat), their diseases have attracted very little attention, and when they fall ill they are left to the tender mercies of the nearest "vet." whose skill is by no means always on a par with his reputation. The subject of rabies, it is true, has been carefully inquired into, but the explanation of this departure from our usual indifference is to be found in the fact that human beings are liable to contract the disease, and the exception testifies to our egotism rather than to our humanity. One would have thought that a disease like distemper, which annually claims as its victims thousands of the young and beautiful of the canine race, would long ere this have been investigated and means devised for protecting our quadrupedal friends from the fate in store for them. We are pleased to record that at last this subject has found its Pasteur, and that the possibility of averting distemper now seems to be within measurable distance. Mr. Everitt Millais has carried out a series of bacteriological observations and experiments at the laboratory of St. Thomas's Hospital, the results of which, so far as they go, point to the practicability of affording an immunity against the disease by inoculation with a modified virus. Their number does not authorize any absolute conclusions, but the record is decidedly encouraging, and should pave the way to observations on a larger scale. Mr. Millais has proved, at any rate, that the malady is due to the presence of one or more micro-organisms, and the rest of his experiments were carried out on the lines which have yielded such brilliant results in respect of other diseases. — *Med. Press and Circular*, April 16, 1890.

Death from Pressure on the Fontanelle.

An old woman in Tranquility, near Easton, Pa., recently showed several children the fontanelle, or "soft-spot" on the head of a baby four months old. After the woman left the house the curiosity of the children became aroused, and all of them pressed down on the soft spot when they had a chance.

The story of one of the children was that every time she put her finger on the soft spot

the baby cried; that she did not know she was doing wrong. The infant was taken sick, inflammation of the brain set in, and death followed. The father had one of the self-accused children arrested, but the Prosecuting Attorney directed the complaint to be dismissed on the ground that if a crime had been committed the accused was not responsible for it.

Terpin Hydrate in Whooping-Cough.

In the *Wiener med. Presse*, March 23, 1890, it is reported that Dr. Wilhelm Manasse has had good results from the administration of terpin hydrate in cases of whooping-cough. He gave to children under one year old as much as twenty-two grains without any disturbance of the urinary or digestive apparatus. With doses of forty-five grains in twenty-four hours, no albumin or blood was found in the urine. Manasse used terpin hydrate in forty-one cases, the patients ranging in age from nine months to twelve years. In general he found an improvement in the patients, with diminution of frequency and severity in the spell of coughing, in four or five days after beginning to use the remedy, when the quantity varied from about twenty to about forty-five grains per day according to the age of the child.

Manasse calls special attention to the bronchial catarrh of whooping-cough and the influence of terpin hydrate upon it. He gave the drug in powder about seven and a-half grains to 15 grains three times a day.

NEWS.

—The Health Office of Jackson County, Mississippi, has reported a case of leprosy in that county. Steps have been taken by the State Board of Health of Mississippi to isolate the case.

—Professor W. W. Keen, M. D., has resigned the position of lecturer on art anatomy at the Academy of the Fine Arts of Philadelphia, and Dr. George McClellan has been chosen as his successor.

—Dr. G. Frank Lydston, of Chicago, has been invited to deliver the opening public address before the Kentucky State Medical Society May 14. His subject will be "Materialism *vs.* Sentiment in the Study of Crime."

—The sixth annual meeting of the National Conference of State Boards of Health will be held at the Maxwell House, Nashville, on Monday, May 19, preceding the annual meeting of the American Medical Association.

—Dr. Samuel B. Swavely, whose expulsion from the Pottstown, Pa., Medical Society was recorded in the REPORTER, Sept. 28, 1889, was arrested in Pottstown, April 29, for criminal malpractice and held in $700 bail.

—The annual dinner of the Medical Alumni of the University of Pennsylvania took place April 30. Speeches in response to toasts were made by Provost Pepper, Mr. Talcott Williams, and Drs. Mitchell, Keen, Billings and Wood.

—Dr. E. W. Pritchard, of Coldwater, Kansas, and an attorney, met at a muddy crossing on May 2, and became engaged in a quarrel as to whom should be given the most room to pass. Dr. Pritchard was finally thrown into the mud. Directly the men came to blows, which ended with the attorney hitting his opponent with a revolver, felling him to the ground. Dr. Pritchard died on Saturday afternoon.

—Dr. Ryland Brown died in Indianapolis May 2, at the age of eighty-three years. In 1858 he accepted the Chair of Natural Science in the Northwestern Christian University, in Indianapolis. During the last two years of that period he filled the Chair of Chemistry in the Indiana Medical College. In 1872 he was Chemist-in-Chief of the Agricultural Department at Washington. He was the author of a work on physiology, which was used as a text-book for many years in the schools of Indiana.

—At the last examination of the candidates for the position of residents at the Philadelphia Hospital the following physicians were appointed, after a competitive examination: Drs. William S. Carter, John H. Rhein, Frances S. Janney, Frances C. Van Gasken, Edwin P. Teuter, Samuel T. Buck, Nathaniel J. Dundelberger, Samuel P. Eagleton, Carl A. Hamann, Gregory H. Hoonanian, Frederick P. Reynolds, Henry N. Doan, Howard S. Anders, Daniel E. Morris, Charles S. Martin, James L. Leys, Thomas G. McConkey, Mrs. Esther L. B. Mathews, Joseph L. Nicholson and George M. Muttact. Thirteen of the successful candidates were graduates of the University of Pennsylvania; three of the Woman's Medical College; three of the Medico-Chirurgical College of Philadelphia, and one of the Jefferson Medical College.

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Clinical Lectures.

AGE OF FETUS — CHANGES IN COLOR OF NEW-BORN.—CARE OF THE BREASTS IN PREGNANCY.—PUERPERAL SEPTICEMIA.[1]

BY THEOPHILIS PARVIN, M. D.,

PROFESSOR OF OBSTETRICS AND OF THE DISEASES OF WOMEN AND CHILDREN IN THE JEFFERSON MEDICAL COLLEGE, PHILADELPHIA.

Age of Fetus.

Gentlemen: A woman was delivered recently at the Maternity of a dead fetus, which is now presented to you. You observe that it is macerated, and therefore had been dead some days. An interesting question relating to the fetus expelled dead or living is: Can we determine, at least approximately, how far development had advanced, or, in other words, what was the age of the fetus? The following table from Auvard I believe will be useful to you in deciding this question:

About the middle of the fourth month the fetus is 20 centimeters long.

About the middle of the fifth month the fetus is 25 centimeters long.

About the middle of the sixth month the fetus is 30 centimeters long.

About the middle of the seventh month the fetus is 35 centimeters long.

About the middle of the eighth month the fetus is 40 centimeters long.

About the middle of the ninth month the fetus is 45 centimeters long.

And at the end of nine months, 50 centimeters long.

Changes in Color of the New-Born.

The two infants, each about a week old, presented for examination, some of you correctly state are affected with jaundice, a condition so common and so free from

[1] Delivered at the Philadelphia Hospital.

danger, that it is known as physiological jaundice. The discoloration of the skin usually comes two or three days after birth, and in eight or ten days fades away, without having, in the meantime, caused the child any discomfort. Various explanations have been given of this condition: One of these is that it results from slight hepatitis, while Frerichs attributes it to the lessened supply of blood passing to the liver, immediately after the cord is tied, and hence a relative anemia of the hepatic capillaries; and this deficiency is compensated by the passage of bile from liver cells into the capillaries. Another hypothesis is that blood exuding into the skin is freed of its coloring matter, and this hypothesis is strengthened by the fact that the coloring matter of bile is not found in the urine of these infants. New-born babes usually pass through certain changes of color. The skin after the detachment of the vernix caseosa is quite red, and becomes deeper in hue as desquamation goes on. Then in two-thirds or three-fourths of all cases the physiological jaundice referred to appears. After the completion of desquamation and the passing away of the jaundice the skin has its pinkish white or flesh color.

Care of the Breasts in Pregnancy.

You know that the mammiferæ compose one of the great classes of the animal world, including some three thousand species, and foremost in this class is man. The word mamma—Greek, Latin and English—which the child first utters—was primarily applied to the breast. More than one of the old Roman writers refers to the infant calling *matrem mammam* as it did *patrem tatam*, a term which is said to survive in the word dad or daddy applied sometimes nowadays to the father. Mamma and dada are the first, or among the first, words uttered by the child. There seems to be a fitness in the secondary use of the word "mamma" as expressing an affection, probably purely animal in its origin, for her who supplies the infant with the nourishment, from her breasts, which it needs—the name of the source of food given to the person who has that source.

You know that woman is uniparous, and it is only exceptionally that she gives birth to more than one child at a time. And, according to the general law prevailing among all animals usually producing but one offspring at a birth, woman has one pair of breasts. Fortunately for woman's comfort and convenience these organs are placed upon the anterior portion of the thorax, and not, as in some other of the mammiferæ upon the abdomen, in the flanks, or upon the back. Her breasts are rarely symmetrical, the right being usually somewhat larger than the left, the opposite being the case probably in left-handed women. You know that each breast is composed of lobes, these of lobules, and the lobules of acini; that excretory ducts corresponding in number with that of the lobes, carry the milk to the summit of the nipple, there opening, and that before passing up in straight tubes in the nipple, they present large expansions called milk-sinuses. When these sinuses are enlarged, distended with milk, they are popularly known as "milk cords." Each canal is surrounded by connective tissue, rich in elastic fibres, which become increased five or six times during lactation. But beside this, these canals have, external to the connective tissue, abundant muscular fasciculi, some longitudinal, others horizontal, and others oblique. The horizontal fibres are the most numerous, and by their contraction cause the nipple to project, and in some cases the compression of the sinuses is so strong that just when the mother is about to give the nipple to the infant milk may be forced in a stream some inches in length. As the horizontal muscular fibres by their action cause a projection, so the longitudinal fibres similarly acting, cause a retraction of the nipple; and probably most of the cases of retracted nipple are to be attributed not to abnormal shortness of the milk-ducts so much as to the predominance of the action of the longitudinal muscular fasciculi, a view which has some confirmation in the fact that often by perseveringly "drawing out" the nipple it can be given good shape, the resistance of these fibres being thus overcome.

In the three women whose breasts you now have an opportunity of examining, you will observe that these organs are apparently well-formed, even presenting somewhat larger size than usual. But the mere size of the breast is no proof that a woman will furnish an ample supply of milk; for the glandular structure may be deficient, the great mass of the breast being formed of fat. Generally a somewhat conical breast, and not a very large one promises better, so far as lactation is concerned. There is a surer promise of milk than the size or form of the

breasts. If there is an abundant secretion during pregnancy, it will be abundant when the time for nursing comes. Possibly some of you knew what it was, when boys, to drive the cows from clover-field to the milking-yard. I certainly did, and the air was no richer "when the early dews were falling" in the summer evening with the aroma of the sweet-scented clover, than with that of the milk dripping, dropping from the swollen udders. You knew that the buckets would be readily filled from these cows, who had been on such lactigenous diet. When a pregnant woman complains that she is always wet from oozing milk, her clothing stained with it night and day, comfort her for the inconvenience she now has, by assuring her that she will have an abundant supply of nourishment for her babe. Another sign of some value, though not so readily available, is the presence of lactose in the urine; a pregnant woman who has lactosuria will surely prove an excellent nurse.

The woman whose breasts I ask you now to look at has nipples scarcely elevated above the surface—indeed if it were not for the difference in color between the general surface of the breast and that part occupied by the areola and nipple, one could hardly recognize that the latter existed at all. What these nipples need is education, taking the word in its literal sense; they should be educed, drawn out. But how?

The simplest method is to have the woman use her thumb and finger, seizing the organ between them, and draw it out; let her do this ten minutes each day three or four times; further, she must be careful that there is no pressure from her clothing upon the nipple, and that space is given it for development—indeed, the use of a solid nipple shield will assist in its proper formation. A breast pump gently used may be employed, or simply a four-ounce bottle, the mouth of which will readily enclose the nipple, and into this bottle hot water is put for two or three minutes, poured out and immediately the mouth of it put over the nipple—the condensation of the vapor in the bottle causes a vacuum, and atmospheric pressure forces the nipple in. I am not at all apprehensive of the least danger of interrupting the pregnancy—though some have expressed such fear—by any of these means properly used.

One word more as to the care of the nipples during pregnancy, for it is not enough to give them proper form, or, having such form already, to ensure uninterrupted lactation; they must be put in such condition that they will not probably suffer injury from nursing and will not become excoriated or fissured. It is many years since I first entered my protest against the means then, and still, commonly employed to prevent these accidents, that sometimes have such grave consequences in mammary abscesses and arrest of lactation. The means generally used are astringents and alcohol. My saying anything upon the subject seems very much like what poor Hood termed the piscatorial precept, "line upon line," for I have so often expressed my views upon the subject. Nevertheless as the constant dripping of water wears away the stone, so the frequent repetition of that view and the practice which is its sequence, may, if true, become generally accepted, and thus be beneficial.

First, though in regard to this point there is no dispute, the nipples ought to be kept scrupulously clean, by employing the means most used for securing cleanliness: soap and water; otherwise the secretion which oozes from them dries upon the surface, and when detached exposes a sensitive surface. But the nipple when in use is subjected to the action of warm moisture, and such action has a tendency to soften the epidermis and thus cause its detachment. Further, the nipple in use ought to have its surface pliable and yielding, not stiff and resisting. We know what nature does for inferior orders of animal life who are especially exposed to the action of water, for example. The ducks, for illustration, have no whiskey and alum or tannin reservoirs to cover their surface with as a protection in rain or pond or stream; but nature has given them an abundant supply of oil for this purpose. Nature has supplied the nipple with a vast number of sebaceous glands, just as she has the nymphæ, and for similar purpose. These glands of the nipple are increased in size and activity during pregnancy and lactation. And now comes an art most meddlesome and mischievous, I think, seeking with preparations of alcohol to dissolve and remove this fatty secretion, and by astringents to lessen the activity of the glands. Further, so far as the skin is concerned, the effect of these preparations is to render it harsh, dry, and resisting instead of soft and pliable. My belief is that letting the nipples alone would be far better than this practice. Nevertheless better than doing nothing, is

applying once a day to the nipple a little cocoa butter, such application compensating for the fatty matter that has been removed by soap and water. If the patient desires anything more she may bathe the nipples once a day with a little tincture of arnica or cologne and water. Daily exposure of the nipples to the air for a short time has been also recommended as a prophylactic against the traumatisms of lactation.

Puerperal Septicemia.

The patient now presented, was brought to the Hospital suffering with septicemia, some week or ten days ago; she had been delivered a few days before her admission. There were diphtheroid—I will not say diphtheritic—ulcerations in the vagina and vulva. The curette was used in the uterine cavity, and the latter was washed out with a 2 per cent. solution of creolin; the ulcerated surfaces were cleansed and then swabbed with a mixture of carbolic acid and iodine. The patient's temperature upon admission was 103°, her respirations 36 and her pulse 118 to the minute. She is now completely convalescent, and I believe the local treatment has been her salvation.

This case illustrates a fact which cannot be too strongly emphasized. The cases of puerperal septicemia now seen at this Hospital are almost invariably those in which the disease originated outside; for so careful are resident doctors and nurses in the employment of aseptic precautions and of antiseptic means, that for a woman whose delivery takes place in the Maternity to have even mild septic infection is very rare. Only a few years ago, in entering upon my term of service, I would find two, three or more cases of puerperal septicemia transmitted to me by my predecessors, and several new cases would originate during my attendance. Some of these patients died although, of course, the large majority recovered. Experience has proved here, as in other lying-in hospitals, that this disease is preventable: and those who have given most study to the causes of puerperal infection hold that the origin is to be sought not in place or season, but in person; not in locality or in time of year, but in the individual who has charge of the woman in labor and in the puerperal state. As I have previously said, in this room, to an audience of nurses, the question naturally arises in every case of puerperal infection, "Who has sinned, the doctor or the nurse, that this woman perishes or is in peril?" It is only exceptionally that one or the other of the parties referred to does not deserve blame. The presumption is that there has been an error of commission or of omission on their part, and the day surely comes when neither the public nor the profession will hold them guiltless. One of the most astonishing incredulities of certain members of the profession is the utter disregard for antiseptics in obstetric practice; you will read in medical journals occasional contributions condemning these means, at least indirectly; statistics of this and of that physician who ignores antiseptic agents, showing either a slight puerperal mortality, or none at all, from septic disease. The first thing to be observed is that this is merely negative evidence, and of comparatively little value. Next, that although these gentlemen have no septic mortality recorded, are they quite sure that there have been no cases of septic morbidity in their practice, a morbidity which may have permanently injured patients thus affected. Puerperal infection presents various characters, and the diagnosis is, in some instances, very difficult. Further, though two or three, or a dozen physicians, practicing in the country, present such favorable obstetric statistics, it is possible that an equal number of others, also ignoring antiseptics, could be found who have had no such favorable results. I believe that there is a larger proportional number of cases of puerperal infection in the country than in the cities, for the last census shows that the puerperal mortality is ten per cent. greater in the former than in the latter. Considering the greater vigor of the woman living in the country; the purer air and the simpler food she has, and considering, further, the vast number of child-bearing women in cities who, from poverty and ignorance, are in wretched hygienic circumstances, one might reasonably expect the mortality percentage to be the very opposite of what it is.

The fact that has been stated is worthy being pondered by every country practitioner, and especially by those who from their own limited experience and from that of a few others, are trying to impress the profession with the notion that antiseptics are unnecessary in obstetric practice.

One fact, which leads me to attach less importance to the opinion of a few of these gentlemen, is that they are believers in the autogenesis of puerperal septicemia in cer-

tain cases, a convenient defence for a reproaching conscience if the disease occurs in their practice. My own belief is that there is no such thing as so-called autogenetic puerperal fever, that in almost all instances the external origin of the disease can be established beyond reasonable doubt, so that the exceptions prove the rule. Autogenesis, like the kindred doctrine of spontaneous generation, perishes in the light of scientific truth.

In a future lecture I hope to consider the prophylaxis of puerperal infection, and the diagnosis and treatment of the diseases resulting from such infection.

FRACTURE OF THE ULNA; NECROSIS.—SARCOMA OF THE RECTUM; COLOTOMY.—RESECTION OF THE WRIST-JOINT.—OSTEITIS OF TIBIA; TREPHINING.[1]

BY JOHN H. PACKARD, M. D.,

ATTENDING SURGEON TO THE PENNSYLVANIA HOSPITAL, ETC.

Necrosis of Bone.

Gentlemen: The first case that I shall show you this morning is one which you saw about two weeks ago. I told you that the patient, a boy eight years old, had sustained a fracture of both bones of the forearm near the wrist-joint, and that this had been followed by some necrosis, a sinus leading down to the dead bone. But I could not then determine exactly the extent of the damage, and there was a considerable degree of inflammation of the soft parts. It was, however, certain that union of the fracture could not be hoped for until the dead portion of the bone was removed. I resorted to an old-fashioned but valuable remedy—a poultice—for the reduction of the inflammation; and then had the child etherized, enlarged the sinus, and readily extracted the piece of bone which I here show you. It is the lower end of the diaphysis of the ulna. You know that the long bones are developed by growth from centres of ossification, one being in the middle of the diaphysis or shaft, and the others in the epiphyses at its extremities. Here the fracture took place near the end of the diaphysis, and the small lower fragment, being insufficiently nourished, died; after which it acted as a foreign body, and relief could only be had by its extraction or extrusion. My hope is that the end of the upper or main fragment may unite with the epiphysis; and in order to favor such an occurrence I have dressed the limb with the hand drawn towards the ulnar side, thus reducing to a minimum the gap between the two portions.

Result of Colotomy.

I shall now show you the result of an operation which I performed about two years ago for the relief of a very distressing affection—a sarcoma of the rectum. The patient, who gave her age as about 60, suffered greatly from constipation, the walls of the bowel being thickened and stiffened by the cancerous deposit in their substance. When the fecal matter was thin, it came away, but irritated the surface over which it passed; and its evacuation was always followed by a severe and long continued sense of spasmodic contraction, although the muscular coat probably could not really act in lessening the calibre of the gut. In order to give relief it was necessary to make an artificial opening into the canal, well above the seat of the disease. Remember the course of the colon or large intestine; as it descends along the left side of the belly, it runs (almost invariably) behind the peritoneum, and may be exposed and opened in the lumbar region, without injury to the serous membrane. Beginning at the upper and outer corner of the quadratus lumborum muscle, I divided the tissues outward and downward almost as far as the crest of the iliac bone. Layer by layer was cut through, until I came to the bowel, which I opened, and stitched the edges of the orifice to those of the wound in the skin. Healing took place very readily, and the fecal evacuations have been through this artificial opening ever since. The patient has gained flesh and strength, and has been about her usual avocations. Of course the disease has not been cured, but the suffering caused by the contact of fecal matter with the probably ulcerated surface has been wholly relieved. There are no involuntary evacuations, and nothing would indicate to those about the woman that she has an artificial anus. Some high surgical authorities have condemned this operation, on the ground that it placed

[1] Delivered at the Pennsylvania Hospital, Dec. 18, 1889.

the patients, they thought, in a condition so disgusting to themselves and those around them that death would be preferable. Such a result I have never seen. In the first case in which I operated, in 1873, the patient was made extremely comfortable, and lived so for eight months, when she succumbed to the original disease, the womb being involved as well as the bowel.

Resection of Wrist-Joint.

This patient was before you two weeks ago, and you will remember that I then told you that she had sprained her wrist about four weeks previously. Why, I cannot tell, but in this case this slight injury has been followed by destructive inflammation in the joint. Her pain has been intolerable, and I have advised amputation through the forearm; but she naturally shrinks from this, and I shall therefore resort to resection of the diseased bones. This is an operation which is not often done, and which rarely gives a satisfactory result; but I am willing to make the attempt to save this poor woman's hand, even if its complete usefulness cannot be restored.

Let me say that I should not advise any interference, but for the fact that even with thorough extension it has proved impossible to relieve the pain of which this patient complains by day and night. Extension has been made here by means of rubber adhesive plaster, one strip around the hand and the other around the upper part of the forearm, the ends being then brought around the ends of a straight splint reaching from the elbow to the tips of the fingers, and joined by a loop of bandage; the degree of tension is of course determined by the pull exerted on this as it is tied.

Various plans have been adopted for excising the wrist; the one which I shall employ will enable me to avoid injury to the tendons, and thus to preserve as far as possible the usefulness of the hand. I shall make at the outer side of the joint a slightly-curved incision, about three inches long, and at the inner side another. Cutting right down to the bone, I find it roughened, and the periosteum loosened from it. By means of this strong steel elevator I detach the periosteum at the front and back of the ulna, and then do the same for the radius; I now push this eyed probe across both bones, beneath the periosteum, and of course beneath all the tendons, and threading the eye with a ligature I am enabled to draw a chain-saw through. Protecting the soft parts by this bone-director on the dorsal side of the bones, I divide these latter, and extract them with bone-forceps. Finding now that the upper row of carpal bones are diseased, I dissect them out, using for the purpose a blunt bone-knife. You will note that although no named vessels have been injured there is very free bleeding; this is always to be looked for when we are dealing with inflamed bone or periosteum. A free irrigation with hot sublimate solution will materially control it, and it will be quite checked by dusting in powdered iodoform.

Passing a rubber drainage-tube through from one side to the other, I close each wound with three or four points of catgut suture, apply the usual dressings, and place the part in a Levis's splint.

Understand distinctly that I have very little expectation of the restoration of usefulness to this hand; but I know that what has been done will take off tension, and possibly the result may prove better than we can venture to predict.

[The wounds in this case healed very well, and in a few days the patient ceased to complain of pain in the part; she suffered severely from an attack of "grippe," but was discharged, very well satisfied, in February. The ultimate result cannot yet be pronounced upon.]

Osteitis of Tibia.

This patient, a girl aged nineteen, has inflammatory softening of the upper part of the tibia—a very frequent seat of such trouble, which sometimes terminates in the formation of abscess, and is very painful from the unyielding character of the structure. About three months ago I operated on this patient, trephining the wall of the bone; but the relief given was only temporary. I lay the bone bare by an incision through the cicatrix of the one formerly made, turn the periosteum aside, and apply the trephine close to the same spot as before. The bone is evidently softened. I carry the instrument on through the cancellous structure, until it ceases to meet with resistance. Now I pass a probe through the trephine-hole, and it enters a cavity, which may be the upper end of the medullary space. There is rather free bleeding, but it is checked by irrigation with hot sublimate solution. I put in a drainage-tube, and apply the usual antiseptic dressing. It would not have surprised me had the trephine opened an ab-

scess-cavity, nor indeed if a central necrosis had been exposed; but I believe this operation will be effectual in relieving the patient.

[This patient had no further pain, and the wound healed very readily; she was discharged, cured, early in the month of January.]

COMMUNICATIONS.

SUCCESSFUL SUPRA-PUBIC LITHOTOMY IN AN OLD MAN.

BY J. McFADDEN GASTON, M. D.,
ATLANTA, GA.

Being summoned to West Point, Ga., by J. S. Horsley, M. D., to co-operate with him in the management of an old gentleman's case, I learned that he had been treated previously by another member of the profession, with bougies for the dilatation of his urethra. He had failed to discover the true cause of his troubles upon sounding the bladder, and declared, upon hearing that stone had been detected by Dr. Horsley, that he would eat all the calculi that might be taken from the patient's bladder.

Upon a full investigation of the case I concurred in the propriety of an operation, not simply for the removal of the calculi, but for subsequent drainage of the bladder to relieve the cystitis.

While there were some considerations favoring perineal incision, greater advantages were presented for the supra-pubic operation.

Before giving the details, I will note the previous record, made by Dr. Horsley: "Lee, James, white, 76 years old; saw case first on October 27, 1889. Patient gave history of having suffered from bladder trouble for three years; had been under care of various physicians, some of whom had examined for calculus, but without success."

Examination of urine showed it loaded with crystals of triple-phosphate and uric acid. One week later an exploration with Thomson's sound revealed the presence of a stone, apparently about one-half inch in diameter. On November 20, 1889, after some preparatory treatment, an attempt was made, with the assistance of Drs. Patillo and Winston, to crush the stone with Civiale's instrument. The stone could not be grasped, although the patient was etherized. On November 28, however, the patient being etherized by Dr. Patillo, and Dr. Winston acting as assistant, litholopaxy was successfully performed, and two stones, one-half and one-seventh inches in diameter, were crushed and were evacuated with Otis' apparatus. No more calculi could be felt at the time.

The patient bore all the manipulations well, but continued to suffer with the evidences of calculus. Examination revealed —though imperfectly—the presence of calculi; but attempts with Civiale's and Bigelow's instruments failed to catch the stone. The patient's sufferings increasing, supra-pubic cystotomy was decided upon.

This operation was undertaken March 17, 1890. A hypodermic of one-fourth grain of morphia and one-one-hundred-and-fiftieth of a grain of atropia was administered by Dr. Winston, and the anæsthetic of A. C. E. mixture was entrusted to Dr. Patillo, with the assistance of Mr. J. Patillo.

As soon as the patient was unconscious the searcher was introduced by Dr. Horsley, who verified his former diagnosis of the existence of several calculi, which was then confirmed by the examination of Dr. Gaston.

An elastic catheter was then introduced into the bladder and its cavity was washed out with a warm solution of boric acid until it returned clear. At this stage a Barnes's uterine dilator was rolled lengthwise and passed into the rectum. A warm solution of boric acid was injected into the bladder until it contained seven ounces. Eight ounces of warm water being injected into the rubber bag in the rectum, the prominence of the bladder above the pubic bone was detected by the hand over that region. The pelvis was raised by placing a pillow under the hips of the patient.

Dr. Horsley now proceeded to make an incision three inches in length in the median line, extending from the pubic bone upward and dissected through the adipose tissue and fiscus until the cut was carried in the central part down to the cellular tissue covering the bladder.

It was thought best, with a view to lift the peritoneum higher, that the injection should be increased; and as Dr. Horsley had verified on a previous occasion from retention of urine, a capacity of ten ounces for the bladder, the injection of fluid into it was increased to that extent; and the injection in the rectal bag was carried to

twelve ounces. There was no longer a doubt in regard to the removal of the peritoneum from the field of operation by a finger hooked into the upper angle of the wound, and with a teneculum securing the walls of the bladder at the lower angle, a cord of four threads of silk was carried through the wall of the bladder on each side. These being looped by knotting the ends were held by assistants while the final cut into the bladder was made between them to an extent for the finger to be introduced, when the presence of numerous calculi was detected. With the aid of stone-forceps a calculus corresponding to the size of a partridge egg was immediately extracted, and others of smaller size were removed with the same instrument, when the further progress was interrupted by passing two stitches of iron dyed silk on each side through the margins of the bladder and skin so as to approximate the cut edges. The boric solution was now thrown fully as a douche into the bladder, and the search for calculi with the finger was resumed by Dr. Horsley, and he succeeded in extracting in all twenty-eight calculi of various shapes and sizes. The warm boric solution was passed again into bladder and allowed to run out of the incision,until it was free from stain of blood or admixture of any kind.

A very remarkable projection into the bladder was caused by the enlarged prostate gland, and it was found that while there was no difficulty in passing a No. 32 bougie through the urethra, it could not be made to emerge into the cavity of the bladder, owing to the obstacle of the prominent prostate. It was not thought expedient to add to the risks of the patient by attempting any operation upon the prostate on this occasion ; and yet at a future day an excision of the middle lobe may be practicable.

The bladder wall was considerably thickened and its structure rather brittle, as was found by the teneculum tearing out when a strain came upon it from the escape of fluid by incision, and its feasibility was also shown by the needle turning out when first inserted through a small portion of tissue. This would indicate that caution should be observed in not carrying the distention too far by injecting, lest rupture into the cavity of the abdomen might occur.

Two drainage-tubes, consisting of soft catheters, were secured in the lower angle of the incision by attaching them to the cords left in the walls of the bladder and condoms were attached to the outer ends to receive the urine. The upper angle of the wound was packed with iodoform gauze, and absorbent cotton was placed over all and a rubber passed around the pelvis.

The patient rallied promptly from the A. C. E. anæsthetic and had no nausea or vomiting subsequently. He complained of general discomfort in an hour after consciousness returned, and another hypodermic of morphia and atropia was given, with a happy effect.

Prior to the operation the temperature had been normal and the pulse about 100 to the minute ; and upon examination during the afternoon there was no change of consequence.

On the next day Dr. Horsley's report at 7 A. M. was: pulse 100, temperature 100°, respiration 20 ; at 2 P. M., it was: pulse 84, temperature 100°, respiration 20 and the patient resting well.

March 20, he reported continued progress; pulse 80, temperature 98.7°, appetite fair, bowels moved by means of Rochelle salts. The patient rested fairly well last night and is bright and cheerful; the wound looks well, drainage does well, kidneys are acting well and the case is altogether hopeful.

March 22, the patient was still doing well, pulse 78, temperature 98.7°, the stitches caused some pain and were removed.

March 24, improvement continued, the wound was looking healthy, the appetite was good and the patient was sleeping well. He was then considered out of danger, with the expectation that the drainage would afford relief to the cystitis.

The following additional report was received from Dr. Horsley, under date of April 4, 1890:

"Our case has progressed steadily and uninterruptedly towards recovery. We had no complications threatening the success of the operation at any time. The temperature never went higher than 100° F. The wound is now granulating nicely, and is about one inch in length. The urine is free from the tenacious muco-pus which was so abundant before and for a few days after the operation. I do not think it proper to allow the wound to close, as the prostate is still tender. Before closing the wound, I purpose having the patient let the urine accumulate in the bladder by wearing a rubber compress over the opening, and to try the outlet by the

urethra, so as to get a definite idea of the condition of the organ."

PNEUMONIA: WHAT IS IT?

(FOURTH PAPER.)

BY HIRAM CORSON, M. D.,

CONSHOHOCKEN, PA.

In my last paper several cases were introduced which were treated by our country, or, if preferred, village doctors. They were all spoken of as pneumonias, simple pneumonias. In the *University Medical Magazine*, April, 1890, a case is reported by W. Henry Price, M. D., as occurring in the University Hospital (service of Dr. William Pepper) which is called: "Pneumonia complicating Epidemic Influenza." The readers of the REPORTER will therefore please to bear in mind that every case reported by the Conshohocken physicians occurred during the prevalence of that same epidemic—*la grippe*—and were, as truly as Dr. Pepper's case, pneumonia complicating epidemic influenza. I say this in order to give my country brethren fair play—an even start; for I shall here give the Dr. Price case in full, word for word; and then let it be compared with those published in my third paper. Dr. Price writes:

"William A., aged 46, came to the Hospital, Jan. 7, with a well-marked case of influenza, showing the ordinary symptoms: head-ache, back-ache, pains in the limbs, lachrymation, coryza, and some cough with expectoration. Besides these, he complained of a 'stitch in the right side.' He was put immediately to bed, ordered *stimulants and tonics* (Italics mine), and a cotton jacket encircling the chest was applied, in addition to strong counter-irritation over the seat of pain. At this time auscultation gave a localized friction rub at the end of inspiration, and percussion showed impaired resonance over the same area. The pain continued, and antipyrin in five-grain doses, repeated thrice daily, was ordered, with considerable modification of his sufferings. The disease, however, spread upward, and friction râles became more diffused; but no exudation could be detected in any position of the patient."

"He now,"—we are not told when, on what day "now" refers to—"began to expectorate rusty sputum, although this was much less tenacious than that typical of pneumonia. Physical examination detected increased fremitus and bronchial breathing over the right upper lobe. At this time the temperature ranged about 103° to 104°; respirations were up to 48, and pulse rate 120. The next day he showed signs of circulatory embarrassment, and, although *cardiac and respiratory stimulants were pushed both by the stomach and hypodermically, he gradually sank and died on January 14, 1890.*" (Italics mine.) It would seem that as the man is dead and the treatment, such as it was, at an end, I might rest my case here; but no, the narration goes on; and I must go with it.

"The autopsy demonstrated the following points: Upon opening the pericardium the heart was found to be twice its normal size, mainly from over distention of all the cavities, which were filled with currant-jelly clots."—Clotted blood I suppose.—"Cardiac veins were also distended. The right heart and both venæ cavæ showed special engorgements. There was no change in muscle or valves, and no pericarditis. Right lung was completely consolidated throughout its upper lobe, which was entirely free from air and showed gray hepatization. The lower lobe showed spots of catarrhal pneumonia with still other regions of congestion. The middle lobe was entirely free from disease. All the lobes were highly adherent to each other from old pleurisy, and over the entire pleura was an exudation of fresh lymph. The left lung, together with all the other organs, were perfectly sound."

It is a comfort to me to have this case to compare with those of the country physicians who have reported their cases, which were in every way like this one, save that their patients were worse, and that they recovered, while this one died. They, like this man, were suffering from the prevailing epidemic, to which was added the congestion and inflammation of the lung to a high degree. They were indeed serious, most dangerous cases, but were promptly treated by the means which, in the practice of these physicians, had so often proved successful, that, despite the doubts and fears of the patient's friends, the responsibilities which confronted them and the knowledge that popular feeling was against their measures, and the leaders of the profession loud and unceasing against their plan of treatment, they asked for no consultants, but with a confidence created by numerous successes, used the best of all known means—free venesection—to relieve their suffering patients from the engorge-

ment of the lungs which was suffocating them.

Drs. George B. Wood and Bartine have graphically described the distention of the blood-vessels and especially those minute arterial terminations called capillaries. Whenever my mind turns to the consideration of the congested and inflamed lung, I can see no relief for it, save by unloading these vessels by venesection. Can it be done by antipyrin, or by arterial sedatives to hold the pulse below eighty, as taught by Dr. Bartine? Or by stimulants—the name for doses of brandy or whiskey, as used in Dr. Price's, or, rather, Professor Pepper's case—when "pushed" and used hypodermically? To these questions I might say No; but I prefer to give, as an answer, the apt illustration which was given by Professor Samuel D. Gross in a discussion on this subject, in the Pennsylvania State Medical Society, at Easton, some years ago. I once used it in a former paper; but it is so true and convincing that it will bear repeating, especially as many readers of the REPORTER have never heard it. Professor Gross said: "Should a man have a congestion and incipient inflammation of the conjunctiva, so that the sclerotic coat would show an intense redness, and the patient was then bled, while in an erect posture or sitting on a chair, until there was an approach to syncope, the redness would disappear; the capillaries being emptied of the blood which had distended them. Just in the same manner would the capillaries of the lungs be relieved, and, in a case of pneumonia the increased action of the heart be modified." Two valuable results from one of the safest and most pleasant remedies, followed by no pain or sickness or unpleaaant effect on the brain or nerves, as is caused by almost any medicine in an efficient dose. Dr. Gross continued: "The exhibition of tincture of veratria or tincture of aconite in a dose to reduce the frequency of the pulse much below the normal rate, would produce no change in the appearance of the eye-balls, as the capillaries would not be unloaded by the mere slowing of the pulse."

It seems to me that just now and here is a proper time and place to call attention to a most important consideration: one that does not appear to have been regarded as of any consequence by the uses of arterial sedatives. I allude to the slowness of its action, when prompt relief is the only safety. In every case presented by the Conshohocken doctors, they, on seeing the patient oppressed and embarrassed in breathing by the congestion of the lung, realized that there should be no delay in applying their means of relief; and, expert as I know they are in the use of the lancet, the blood was spouting from the median basilic vein in less than ten minutes, and the patient experienced, as the blood was flowing, a sense of relief which increased as the blood continued to flow. I have rarely bled a person thus oppressed in pneumonia, who has not in a few minutes after the operation spoken of the relief obtained by it.

Now, I want the attention of the reader. Not one of these three physicians would have been willing to leave his patient until the next day without bleeding him. No, not for a single hour; knowing full well that such absence would seal the patient's fate. You ask, "Why is this haste necessary? Are there not very great congestions and intense inflammations which do not terminate fatally, though not treated by blood-letting? which even go on to suppuration, and yet the patient survive: notably, mammary inflammation in females?" Yes; and this may serve me well to show why in this case—mammary abscess—the treatment by arterial sedatives or waiting for a crisis may be continued from day to day, and life be not even threatened; because, although it is *on* the chest, it is not *inside* of the chest, distending the blood-vessels and the minutest capillaries, and blocking up the air cells, so that the patient is threatened with suffocation if not relieved. How utterly useless these arterial sedatives are even in mastitis, we all know. But they serve to make the patient believe something is being done for her. I have conversed with many persons who rely on these medicines, and have found that they generally use doses which have to be repeated every two or three hours for a whole day, indeed oft-times much longer before the medicinal, or rather poisonous, effect is produced. This waste of time waiting for its action is of little moment in mastitis and many other inflammations in parts of the body not necessary to the continuance of life; but when the brain, the heart or the lungs are attacked there should be no talk of tendencies to recover, no waiting for a crisis, no dependence on the let-alone doctrine; but an energetic use should be made of efficient means of cure. Should a patient, fairly under way with pneumonia, be treated by a reformer,

and wait hours upon hours for the slow action of his remedies, the congestion and inflammation rapidly increasing, and with their increase his sufferings becoming more and more intolerable—and there are few conditions harder to bear than the struggles for breath—he would soon be beyond the possibility of recovery. The mammary gland may be allowed to suppurate or be cut away by the surgeon and life not be endangered; but the blocked-up lung must be relieved before the suppurative process is reached or death is almost, if not wholly, inevitable. Dr. George B. Wood has told us that it is doubted whether recovery ever takes place in the third or suppurative stage.

I have been tedious in presenting the importance of prompt action with efficient measures, and the danger of the inevitable delay which accompanies and is inherent in the methods of treatment, followed by the "arterial sedative," "waiting for crisis," do-nothing people called reformers.

But I did my best; and it has been well said:

> "Who does the best his circumstance allows,
> Does well; acts nobly; angels can no more."

Let us now return to Dr. Pepper's case. The patient was a man aged 46 and in the prime of life; every organ in his body was sound and performing its functions properly, save only the right lung, which was moderately affected in its lining membrane, as was common with hosts of people during the time of the epidemic, *la grippe*. There was, too, a "stitch" in the side and a general malaise such as accompanied the recent influenza, and "some cough and expectoration." "He was immediately put to bed, ordered stimulants and tonics, a cotton jacket, and strong counter irritation over the seat of pain." I am truly thankful to have this case. The hospital physicians had it in its early, remediable stage; and it was under the care of the great leader—or one of the leaders—of the medical profession in the United States; and to his teachings and treatment the hosts of practitioners who denounce blood-letting in all diseases look for guidance. Well, then, what did he do for this sick stranger? At once he "ordered him stimulants"—whiskey or brandy, no doubt—and "tonics"—quinine certainly. He should have told the readers of the *University Medical Magazine* why he ordered this treatment; should have given some good, convincing reason for it. He should have told the students, and also the readers, what was going on inside of the chest; what caused "the stitch in the side, the cough and expectoration," and that the remedies which he ordered were adapted to the removal of these diseased conditions. An experienced physician like the one who had charge should surely have known that there was some bronchial affection; and the stitch in the side should have been to him an indication that there was mischief being enacted in the lung or the pleura. Believing these conditions to exist, were stimulants—alcoholic stimulants—needed? How did he expect them to act, so as to bring relief to his patient? Were they not, by their well-known mode of action on the human system, positively interdicted, because of the almost certainty that they would increase the inflammation in the bronchi and the lung tissue?

But what are the facts? Despite the stimulants "the pain continued." What a stubborn kind of pain it must have been, not to yield the field to stimulants! It seems to have had no reverence for whiskey. But the physician was not to be baffled. He earnestly and determinedly engaged in battle with the disease, and prescribed his most potent remedy for "stitch in the side": the celebrated, but wayward antipyrin, in five-grain doses, three times daily. That is, a dose about every six waking hours, which allows the disease an open, unobstructed way before it, to seize on more of the lung. The morning dose has been given—the patient feels no relief, but waits and suffers for six hours more; then comes a second dose, but still no relief; and again six hours of suffering and waiting for the third dose. How many days this went on we are not told; but until the *doctor* thought there "was considerable modification of the suffering." But what was the patient's real condition? Listen to the doctor: "The disease, however, spread upward, and friction râles became more diffused;" in spite of the "considerable modification," I suppose. "He now began to expectorate rusty sputum." Poor fellow! While the doctor was waiting in vain, day after day, for good effects from stimulants and antipyrin, and despite a seeming or fancied modification of your sufferings, pneumonia was rapidly developing, indeed had fully developed; for, in the doctor's words: "At this time the temperature ranged about 103° to 104°, respirations up to 48, and pulse rate 120." (Oh, that a

Conshohocken doctor could then have been at your bedside !)

We are not told what was done that day ; but from what follows we are justified in believing that the administration of stimulants was continued with increased force, for the narrative thus proceeds : "The next day he showed signs of circulatory embarrassment" (which means, I suppose, that the man was greatly oppressed, the heart laboring vainly to keep the right side open to receive the blood from the two great veins which were crowding it upon that organ) and, although cardiac and respiratory stimulants were *pushed* both by the stomach and hypodermically, he gradually sank and died on January 14, 1890."

Such was the treatment of a case as favorable for recovery, under such treatment as our country doctors gave to their patients, as ever occurs. The autopsy showed that every organ of the body was perfectly normal, save the right lung ; and of that only the uppermost lobe was affected with pneumonia, besides a few spots of catarrhal pneumonia, and other regions of congestion in the lower lobe. The middle lobe was entirely free from disease. The left lung, with all the other organs, was perfectly normal. There was no disease of the muscles or valves of the heart—no pericarditis. The man died from an uncomplicated pneumonia of merely one lobe of the right lung. No, I cannot say that ; I fear the stimulants and quinine and antipyrin helped the disease. Behold the condition of the heart ! "Twice its normal size," mainly from over distention of all the cavities, which were filled with currant-jelly clots. "The right heart and both venæ cavæ showed special engorgements. Cardiac veins were also distended." What caused the heart to be in this condition ? Not loss of blood, I ween. I dislike to dwell on this case : one of the most favorable for treatment, and which came under the notice of the physician in its earliest stage. Lay it alongside of the Conshohocken cases, and see how much worse every one of them was when the blood-letting was resorted to ; see the relief it brought, and the fact that the patients were saved. One word more in condemnation of beginning the treatment of such a case with stimulants and persisting in their use, and increasing and "pushing" them, day after day, until the heart, distended almost to bursting, gave up the struggle against doses of alcoholic liquors, pushed with increased force as its contractions failed. What a sad picture ! a man suffocating ; a heart filled with currant jelly clots which have blocked up its every cavity, after distending it until it could be enlarged no more—still having stimulants poured down his throat and injected under his skin ! And for what ? Tell us why it was done, or forever cease denunciations against blood-letting.

Professor Samuel D. Gross was a strong advocate for blood-letting in pneumonia. His address before the American Medical Association is a grand appeal for its use ; and, in a paper published (I think) in the *County Practitioner*, he wished that his voice in its favor "could re-echo to the ends of the earth." His son, ill with pneumonia, died without receiving the benefit of that means of cure. Many years ago Professor Joseph Carson, M. D., said that Dr. Ezra Michener was one of the best practitioners and writers of medical papers in our State. No stronger advocate for the use of the lancet in pneumonia and some other affections was known anywhere, even to the day of his death, which occurred only about ten years ago, when he was 92 or 93 years old. When he was in his 87th year he fell and broke his humerus near its upper end. "Five days afterwards he felt quite poorly and chilly, with aching pains in the maxillary glands, in the afternoon ; in the following night he awoke with fever, with weight and a burning sensation in the right thorax ; the breathing was oppressed and hurried." Dr. Stubbs, who was called to him, diagnosticated pneumonia ; but doubted whether it would be safe to bleed him on account of his great age. Dr. Michener said : "It must be done. If I have but a little blood in store, a proportionate quantity should afford relief, especially now in the congestive stage." What confidence in the remedy, which he had used successfully hundreds of times ! He said : "I will sit up, a less quantity of blood will suffice." Dr. Stubbs bled him ; and when he drew his first free breath, the flow was stopped. Fifteen ounces had been taken from this thin, spare, old man ; and the relief was perfect. Dr. Stubbs, in his report, says : "If bleeding will do this for a thin, spare man of his age, what ought we to expect from its use in young and plethoric subjects ?" And, let me add, what might we expect in a man 46 years of age, sound in every organ of his body save one lobe of one lung ? Contrast the treatment confided in by this old man, with an experience reaching from 1816 to 1881,

with the hospital case. In the one there was immediate relief by the means used, in the other a steady increase of suffering and finally death in seven days.

It is matter of regret to me that necessity demanded these papers. I have seemed to make the two great medical schools of Philadelphia special points of attack. Circumstances favored this; and it was appropriate; for they are the leading medical colleges and hospitals of America; and their teachings and practice are received as medical gospel in every college and hospital in all our vast country. A reform there would be the prelude to reform in all.

In view of my advanced age, it is not probable that I shall ever address the readers of the REPORTER again on this subject. These papers have been written in sorrow, not in anger. I claim for myself no exceptional goodness; have no faith in cold and formal prayer; have never reached that humble state in which I could "turn the other cheek" to the smiter; yet as regards those who persist in a most erroneous and dangerous treatment of pneumonia, and denounce the means so successfully employed by the profession for more than a century, I have often desired to make my own that beautiful appeal which has come down to us through almost nineteen centuries, as redolent as when first uttered of mercy, charity and forgiveness: "Father, forgive them, they know not what they do."

SYRUP HYDRIODIC ACID *vs.* ALKALINE IODIDES.

BY A. E. NORTON, A. M., M. D.,
PHILADELPHIA.

Our attention, in practice, is being constantly directed to the fact that the iodides of the alkalies are exceedingly repugnant, not to say nauseating and irritant forms for the internal administration of that valuable alterative and antiseptic, iodine.

We have had much difficulty in administering iodide of potash in cases where its use should be prolonged; not only on account of its direct irritant action, but also by reason of its destructive influences upon the gastric secretions; the caustic alkali neutralizing the natural acids of the stomach, thus causing anexoria and other evil symptoms.

We have repeatedly attempted to mask the bad properties of iodide of potash by using it in conjunction with various vehicles, but with only limited success. Women and children, usually, greatly dislike any mixture containing the potassium salt, and a delicate stomach will seldom retain sufficient to produce beneficial results. For a number of years past I have used as a substitute for the alkaline iodides, iodide of hydrogen or hydriodic acid, in a syrupy form; and where I have found it necessary to place the system under the influence of iodine, or wherever that element was indicated internally, I have never found any form of iodine to give the prompt and satisfactory results that I have obtained from the use of this admirable preparation. But before speaking further of this iodine compound I wish to show why the alkaline iodides are objectionable as means for administering the element in question.

In my opinion, which is substantially the same as that of many other physicians, potassium iodide, the most frequently prescribed salt of iodine, is the least desirable of all the iodides of the alkalies. It is more apt to irritate the mucous coating of the stomach than either the ammonium or sodium iodides, and it cannot be so freely given as either of the latter salts; nor can the medication be so long continued. When we come to subject these drugs to an analysis, the reason for this difference is so apparent that one is not required to be well versed in chemistry to discern it. I will attempt to demonstrate:

The equivalence or combining power of iodine being 127 and that of potassium 39·7, they naturally unite in that proportion to produce potassium iodide, and the finished salt, as we find it on the market, contains 24 per cent. of its alkaline constituent —potassium. This large amount of alkali more than neutralizes the natural acids of the stomach, causing nausea, loss of appetite, etc. The sodium salt is frequently resorted to on account of its lesser tendency to irritate; but from the fact of its also containing a very large percentage of the alkaline salt, sodium (the combining power of sodium being 23), it is open to the same objections that are found with the potassium salt, though perhaps its pernicious effects are less frequently observed.

Ammonium iodide is thought by some to possess certain advantages over either of the above salts of iodine; but it also contains a

large amount of alkaline salt, as a carrier for the iodine; and, in addition, is rarely found on the market uncontaminated with iodate and other impurities which render it objectionable.

The syrup of hydrogen iodide or hydriodic acid, however, seems to me to be, theoretically and practically, the ideal form of iodine, inasmuch as it is as palatable as an elixir, having a gratefully acid taste, being perfectly colorless and beautiful in appearance.

Twenty years ago the fact of a medicinal product being handsome in appearance and appealing pleasantly to the palate would probably, of itself, bear little weight; but in the present epoch of elegant pharmacy, when the tastes of the people are educated to pleasant remedies, the agreeableness of a medicinal preparation, when accompanied by merit, necessarily furnishes one of the strongest incentives for its adoption.

In hydriodic acid the element hydrogen, which is used to combine with iodine in the formation of hydrogen iodide, is gaseous, and, being a monad element, its equivalence is but one; it therefore unites with iodine, also a monad element, having the atomic weight one hundred and twenty-seven. It will readily be observed that the two elements unite in the direct ratio of 1 (hydrogen) to 127 (iodine) and here, at the very foundation of the preparation, is where the perfection of the compound is seen to advantage. It will be observed that the carrying, the basilous element, hydrogen, is represented in a quantity less than 1 per cent. Contrast this formula with that of iodide of potash, containing 24 per cent. of caustic and irritant alkali as a carrier for its equivalence of iodine. Contrast it with any other form of iodine now in general use, and from every point of observation the advantages will be found in favor of hydrogen iodide.

I have found the syrup more assimilable than other forms of iodine, and account for the fact thus: When an alkaline iodide is placed in the stomach, its alkaline constituent unites with the free hydrochloric acid found there, and by the following reaction produces hydriodic acid:

$$HCl+KI=KCl+HI.$$

Certainly the amount of hydrochloric acid found in the stomach is very small, but the fact that it unites with the potash of potassium iodide, with the above result, is beyond a doubt; and as nature supplies additional quantities of hydrochloric acid, it continues to unite with the potassium salt in the above manner, until all available salt is converted. While this is going on the hydrochloric acid, so needful for digestion of food, is being appropriated for other purposes; thus the general upheaval of the stomach, frequently met with when administering the alkaline iodides is evinced by nausea, eruptions on the skin, etc.

When iodine is administered in the form of hydriodic acid it is already prepared for assimilation, and being in itself slightly acid, robs the stomach of none of its necessary constituents, and therefore no evil effects are observed. In the practical use of the preparation I have found it to possess but one disadvantage, and that one not very serious. It consists of its incompatibility with some of the metallic salts, though combinations may be made with vegetable tinctures and fluid extracts, or with bichloride of mercury, which latter drug I frequently combine with the syrup hydriodic acid, the combination producing the same familiar reaction which is observed when iodide of potash and the bichloride were brought in contact, viz.: biniodide or red iodide of mercury, which is redissolved by an excessive quantity of the iodine compound. I have frequently prescribed the syrup of hydriodic acid in conjunction with arsenic and its preparations, particularly Fowler's solution, and have noted excellent results where this form of medication seems indicated.

Hydriodic acid is by no means a "new remedy," though its use has been limited on account of its extreme delicacy, as usually prepared.

The dose of the syrup, speaking from my own observations, is from a few minims to half an ounce, and the same should be highly diluted with water. One teaspoonful of the syrup is equal in therapeutic strength to about five grains iodide of potash. Fifteen-minim doses, frequently repeated, will give prompt relief in bronchial and asthmatic difficulties. In psoriasis; enlargements of the thyroid gland, and other glandular enlargements; in syphilis; spinal sclerosis, etc., the dose employed should be from one to two teaspoonfuls, three times daily, preferably at meal-time.

I think if those of my professional brethren who feel the want of a particularly fine iodine preparation, will give the syrup of hydriodic acid a trial, they will find it all

that could be desired. I, personally, consider it a *sine qua non.*

A CASE OF DETACHMENT OF THE ALVEOLUS AFTER EXTRACTION OF THE TEETH.

BY C. H. M. NEALL, M. D., D. D. S.,
PHILADELPHIA.

A patient called at my office to have eight teeth extracted, with the roots of the first and second molars of the upper jaw. After extracting the two centrals, two laterals, and the canine of the right side, the alveolar process became detached and came down to the extent of half an inch. I used my excising forceps and cut through the alveolus in extracting the roots of the first and second molars to loosen them so as not to cause any more displacement than what already existed. After finishing the extraction of the teeth, I forced the alveolar process back into its normal position by firm pressure, and adjusted a piece of cork to fit the alveolus perfectly. The cork contained a number or holes, to allow of free drainage in case of any discharge, and I treated case antiseptically. The cork was held in place by means of a "roller bandage" closing the jaws. The patient received all nourishment by means of a glass tube. The antiseptic mouthwash contained ten drops of carbolic acid to the fluid ounce of water. In three days the patient returned to my office and I removed all the dressings, finding everything doing very nicely. In about twelve weeks she returned, the process firmly healed, and I took an impression of her mouth, and made a full upper denture.

This is the first case that has come under my observation, but I have heard of other cases similar to mine.

While writing of this case for medical men, to whom an accident of the sort would be more embarrassing than to one who makes a specialty of dentistry, I would like to add a word in regard to the importance of some knowledge of dental medicine to all physicians and especially to those who practice in the country. Many physicians are so situated that it is necessary for them to extract teeth comparatively often, and usually they have to perform this duty with an altogether insufficient preparation for it.

Numbers of teeth attempted to be extracted are fractured just through the inability of the physician to decide what kinds and forms of forceps to use.

I believe that all medical schools should devote time to a careful study of the teeth as well as to the other branches of medicine, and have demonstrations on patients in the clinic, so that students can see for themselves what forceps are used, and how they should be applied.

REPORTS OF CLINICS.

WOMAN'S HOSPITAL, PHILADELPHIA.

SURGICAL CLINIC.—PROF. JOHN B. ROBERTS.

Scapular Abscess.

James B., 7 years old, colored, entered the Hospital Nov. 5, 1889, suffering from an abscess over the shoulder-blade. The abscess was tubercular, and about the size of a man's fist. On entrance, the patient's temperature was 103.5°, his pulse 102, and his respiration 33 per minute. The child was emaciated, had a hot, dry skin, and parched lips. The shoulder was stiff, and painful when movement was attempted. The patient was etherized and the abscess was freely opened, and, after its evacuation, well curetted. A drainage-tube was then inserted, and the wound closed. Dry antiseptic dressings were applied, and the shoulder and arm immobilized.

Tenosuture of Radial Extensor Tendons.

Three years before the boy had sustained an injury of the left wrist by being cut with an axe across the radial side of the wrist; whereby the extensor tendons of the thumb, and the tendons of the extensores carpi radialis longior and brevior, were divided. The wound had been sewed up and allowed to heal, without the surgeon having united the several tendons, and the child now suffered from traumatic wrist-drop, being totally unable to extend the radial side of wrist and the thumb. After the abscess upon the shoulder had sufficiently healed, Dr. Roberts had him etherized in order to correct the deformity of the hand. A longitudinal incision was made in the direction of the tendons, and the severed ends of the

extensores carpi radialis longior and brevior were found and stitched together. The operation was tedious, because by this time the upper ends, which had retracted at the time of the injury, had become agglutinated with the surrounding tissue in the vicinity of the annular ligament, and it was difficult to distinguish them until the tendons had been found above and followed downwards. The distal ends of the tendons were only discovered by knowing their attachment to the metacarpal bones of the index and middle fingers, because they had become atrophied and appeared as small portions of fibrous tissue. Pulling on them, however, extended the wrist and established their identity. Only a union of the extensors of the wrist was attempted; as in a child of seven years the thumb tendons are so small that after three years atrophy it would be almost impossible to find them, and, therefore, it was deemed wise not to prolong the already protracted operation. Chromicized catgut was used to suture the ends of the tendons together, which were overlapped and held by passing the suture through each and twice before tying. The wound was then sewed up, dressed with dry antiseptic gauze, and the hand kept in a position of over-extension by a plaster of Paris dressing over all, so as to prevent dragging upon the re-united tendons. The temperature after the operation at no time rose to 102°, and after the first two days fell nearly to normal, and remained there. On December 6, two weeks after operation, the dressing was removed and the wound found nicely healed, except at one place, where there was a small quantity of pus. This pus was supposed to be due to the tuberculous character of the child's system, and not to failure in the antiseptic precautions used; although this was not certainly established. The wrist was washed with bichloride solution, and antiseptic gauze re-applied, and the forearm placed upon a straight splint. It was dressed again on December 14, and after that daily until all parts were thoroughly united. On December 21, the splint was discontinued, and after the swelling of the fingers had completely subsided, the patient was found to have very fair use of the fingers and hand. At the present time there is almost perfect return of extension to the wrist, and the hand has accordingly become a much more useful member. It is possible that at a future time an attempt may be made to find and unite the small thumb extensors. The case well illustrates the importance of sewing all cut tendons at the time that incised wounds are presented for treatment. It is a common practice for physicians to be satisfied with simply suturing the cutaneous wound. This is a reprehensible practice, since it leaves the patient with a disabled member. All cut structures whether muscles, tendons, nerves or fasciæ, should be subject to immediate suture with buried catgut or silk sutures. The surgeon's duty is not done unless this is accomplished. Secondary suture as in the present case is valuable when primary suture has been neglected.

Operation for Club-Foot.

Katy F., a child eleven years old, was admitted to the Woman's Hospital, Nov. 13, 1889, for an operation for congenital club-foot on the left side. The child was said always to have been rather delicate, and at the time of admission, was still somewhat anemic, although otherwise in good condition. The deformity was of the variety talipes varus, and she walked, with great difficulty, upon the outer border and dorsum of the foot, where a large bursa had developed. Five years before admission, she had been an inmate of the Children's Hospital for operation on the same foot, and at that time several tendons, it is said, were cut and apparatus applied to correct the deformity, but without success. Her present age, eleven years, made Dr. Roberts decide, that anything short of a thoroughly radical operation would be useless, as, by this time, the bones of her foot had so far ossified, as to give no hope that they could be molded into proper shape by any apparatus, and his plan was, therefore, to remove such bones of the tarsus as prevented the foot from being brought into proper position. Tarsectomy was accordingly performed Nov. 15, 1889. The bones of the tarsus had been distorted until they formed a wedge, the outer ones being the broad end of the wedge, and those on the inner side of the foot forming the apex.

A large flap was cut upon the outer side of the foot, and the cuboid bone first removed, then the external cuneiform bone and the scaphoid, and, as the foot would still not come rightly into place, a projecting portion of the os calcis was also cut off with the bone nippers. There was considerable oozing, most of which seemed to come from the cut surface of the os calcis. The plantar fascia was then freely divided as well as

the tendon of the tibialis anticus, and the foot forcibly bent into position. A drainage-tube was inserted, dry antiseptic dressings were applied, and over all a plaster of Paris bandage to keep the foot in position, until the parts had become firm, and the wound had healed. After the operation the child was very nervous, and her temperature ran up for a couple of days, reaching even so high as 105.2°; but it soon came down to nearly normal, and remained there during the rest of her stay in the hospital. The oozing was so great also, that within the first twenty-four hours, all dressings had to be removed, because they were soaked through. The limb was washed with bichloride solution (1-1000), the drainage-tube removed, and fresh dressings applied and covered with a strong gypsum bandage to retain the foot in proper position. This dressing remained in place till December 20, a period of about five weeks, when it was again changed. At this time the wound was found to be healed except at one small point. It was now dressed daily with carbolized zinc ointment, and by December 26, was completely healed. All dressings were discontinued, and the Faradic current applied to the muscles of the leg for ten minutes twice daily; and massage of the foot and leg given for half an hour, as often. By degrees the patient began to walk, taking only a few steps at first, until by December 31, she had acquired good use of her limb. She now stands firmly upon the sole of her foot, which is shorter than the other because of the loss of the tarsal bones, and the long standing atrophy from disuse. She can walk very well, with only a slight limp. She needs simply a well-laced firm shoe, with, possibly, a steel rod at each side of the ankle-joint, to support the weak foot and ankle until the parts become more solid and stronger. Her gait will not have the elasticity of a child with perfectly normal feet; but the limp will be almost unnoticeable when she grows older and becomes accustomed to walking.

Leper Hospitals in India.—It is stated that, to commemorate Prince Albert Victor's visit to India, Sir Dinshaw Petit has offered one lakh of rupees to build a Leper Home for Bombay, and the Nawab Junaghad has promised to build a Leper Asylum for the province of Kattywar. The permanent Memorial Fund for a Leper Asylum at Calcutta amounts to upwards of 45,000 rupees.

Periscope.

Pneumothorax.

Mr. Walter A. E. Waller reports the following interesting case of pneumothorax in the *Lancet*, Feb. 8, 1890, in an apparently healthy young man without realized injury:

The patient, sixteen years old, had never been laid up, except for an attack of rheumatic fever nine months before. During this attack there was a mitral bruit, with very thumping action; but this all cleared up, and when examined for admission into a lodge of Foresters a month or so previously to his present illness he was found sound. On April 19, 1889, being in his usual health, he went out brook-jumping in thin shoes, but did not get wet, and had no fall. After this he had a cold in the head, but nothing more. On April 24 he began to ail, aching all over, etc., but walked a mile and a half, with a steep hill each way. On the following day pain and fulness in the epigastrium were experienced, with short breath; but he walked to work, though having to rest twice in going up the hill. On April 26 he got up and walked into Rugby, but was so ill when he reached his work that he was soon sent home in a cab. Next day Mr. Waller saw him at his house. He did not look ill, and talked of going to work again in two days. His temperature was normal. On examining the patient's chest, inspection showed deficient movement of the right side of the chest, and auscultation revealed insufficient respiratory sound on that side, though the breathing was nowhere inaudible. No tube sounds and no egophony were present, but there was a most peculiar and marked metallic echo over the front and back of the right side on coughing or speaking, and it did not seem that liquid was concerned in its production. Resonance all over the right chest was a little deficient, but fremitus was everywhere present. On the next day the patient was in bed, with a temperature of 101°, but there was no pain. Next day, however, he was unable to sleep from violent pain situated low down and in front of the right chest. Physical signs were much the same. No friction sound to account for pain. The right chest was now rather more resonant than the left. Movement and respiration were more deficient. The curious metallic echo was as marked as before, and could now be produced by deep inspiration, as well as by coughing and speaking. The tempera-

ture was 102°. The pain was much relieved by poultices and small doses of morphia. The tongue was thickly coated; there was some colorless, frothy and muco-purulent expectoration. On the 30th the temperature was 101.6°, pulse 120 at least (weak), and general restlessness was marked. The breathing was very embarrassed, face ruddy, and the ears were becoming blue in color. The right chest was fuller both above the clavicle and over the general surface; tongue was still thickly coated. The patient experienced great thirst.

A diagnosis of uncomplicated pneumothorax, probably of traumatic origin, was reached, and stimulant expectorants with opium and digitalis, brandy when necessary, were given. The day following the bowels were relieved after a good purge, and there was no alteration in the pulse. The patient slept two hours in the early part of the night. Chest signs much the same, with less expectoration. Mr. Waller made an exploratory puncture in the axillary line, but the needle soon got blocked, and was withdrawn. On May 2 the patient slept a little. Pain distinctly paroxysmal in character round the right nipple. He was still able to expectorate some sputum with effort; movement of the chest was freer, but it had the appearance of having air under the skin. He complained greatly of oppression over the epigastrium. Mr. Waller punctured the right chest with an ordinary hydrocele trocar; plenty of air was forced out, but no fluid. The patient passed a good night, and slept about five hours, and had no pain or dyspnœa till the morning, when the metallic echo was not so distinct in the axilla, though much as before elsewhere. After this the patient's recovery was rapid and, although the physical signs did not entirely disappear, he was soon able to go to work again.

Olive Oil in the Treatment of Gall-Stones.

When, some years ago, some cases of successful evacuation of gall-stones in attacks of biliary colic following the ingestion of large quantities of olive oil were published, they were received with some incredulity, which passed into ridicule when it was found that the oil itself was evacuated in the form of saponified pellets. Nevertheless, the practice was not abandoned in some quarters, and from time to time further successes were claimed for this singular form of medication. Recently Dr. Rosenberg has related three such cases, which are quoted in the *Lancet*, March 1, 1890. The first was a patient, thirty-six years old, who had suffered from gall-stone for several years and had been treated without result. The gall-bladder was enlarged. The patient during two weeks drank over a quart of olive oil, only vomiting once, and at the end of that period the liver and gall-bladder had notably diminished in volume. She had remained free from colic eighteen months after the treatment. The second case was that of a workingwoman, thirty-seven years old, who was attacked with biliary colic. There was slight icterus, which always increased at the menstrual periods. The liver reached for three fingers' breadths below the ribs. She was given seven fluid ounces of the oil mixed with a little menthol and the yolk of egg. Next day the pains had disappeared and the liver had diminished in size. The jaundice and pruritus persisted; so another similar dose was administered, when these signs also disappeared. For several days after she passed biliary calculi. The like result was obtained in a third patient, thirty-eight years old, who, after nine years' suffering from attacks of hepatic colic, had been unrelieved by many "cures" at Marienbad and Carlsbad, although on each occasion she had passed some small calculi. Rosenberg states that of twenty-one cases treated on this plan there were only two in which it failed. He found by experiment that large doses of olive oil increase considerably the flow of bile and diminish its consistence. And he mentions, on the authority of Cantani, that in Italy, where olive oil is taken largely as an article of diet, gall-stone is less frequent than in any other country. Lastly, Rosenberg would not advise recourse to this remedy until other methods had been tried and failed; but, as he truly says, it may well be prescribed before advising recourse to cholecystotomy.

The value of olive oil in the treatment has also been recognized by several physicians in the United States. In the Reporter, Nov. 9, 1889, Dr. Thomas J. Mays reported three cases of gall-stone in which desertspoonful doses of olive oil, exhibited every three or four hours, completely relieved the hepatic colic and caused a rapid subsidence of the enlarged gall-bladder. In the Reporter for March 1, 1890, a case reported by Dr. J. I. Kelly was quoted, in

which two doses of olive oil, one of eight fluid ounces and one of six fluid ounces, given two hours after, caused the immediate relief of a most severe attack of gall-stone colic, and was followed by the passage of a handful of gall-stones the same day.

Hypnotism and the Law in Austria.

In October, 1889, the following law, relative to hypnotism, was promulgated in Austria:

"Whosoever, for the sake of the healing of disease, the prevention or mitigation of pain; or for the sake of instruction, experiment, demonstration or exhibition, shall use any method which is calculated to cause the loss of, or weaken, the consciousness of a human being, or which shall lessen the said human being's mental activity, shall be punishable with imprisonment, or a fine not exceeding 300 florins."

At that time the *Wiener Med. Presse*, in commenting upon the propriety of such a law, claimed that it could not be extended to the use of hypnotism by physicians without also including the use of other means capable of producing unconsciousness, or narcosis, such as morphine. The views of the Chief Sanitary Councilor (Oberster Sanitätsrath) agree with the above. In bringing the matter to the attention of the Department of Justice, he says, special enactments by which the study of hypnotic phenomena, or the use of hypnotism for therapeutic purposes would be restricted or made liable to punishment, are neither justifiable or necessary, because the study and therapeutic use of hypnotism by physicians could no more be denied them or restricted, than the use of narcotics or any other heroic remedies, such as poisonous drugs; and further, because misuse of the privilege of employing hypnotism, or neglect of proper precautions when it is employed, is not a specific offense, and is covered by the same penal statutes which apply to the offenses of physicians.

Antipyrin in Asthma.

Mr. Charles Smith reports, in the *London Medical Chronicle*, March, 1890, the case of a man, aged thirty-six, who had suffered from asthma for some years, the attacks commencing shortly after measles. The season of the year had no influence on the ailment, the paroxysms being as frequent in summer as in winter, but the time of taking food of course had a marked influence on them. Treatment for the purpose of preventing the asthmatic attacks entirely failed, but nitrite of amyl at first seemed to shorten them. Usually they came on every month or six weeks.

In August, 1889, thirty grains of antipyrin were given at the commencement of a paroxysm. In ten minutes complete relief was obtained. Twenty-four hours after there was a slight recurrence of the attack, which antipyrin promptly subdued. From that time to January, 1890, there had been no recurrence of the attacks.

Psilosis, or Sprue.

Dr. C. Begg, in the *Lancet*, Feb. 8, 1890, in writing on the intestinal disorder variously named "psilosis" or "sprue," which is common in China, from his nine years' medical experience in that country, points out that there is little ground for believing the affection to be a specific disorder of the intestinal mucous membrane, as urged by some writers. He would rather regard it as a form of intractable diarrhœa from deranged intestinal digestion; and, in support of his contention, he points to the fact that the tongue remains clean and the appetite unimpaired. His main arguments are, however, derived from the result of treatment, for he finds in santonin a drug which acts as effectually in such cases as ipecacuanha does in dysentery. He was led to employ santonin from suspecting the presence of ascaris lumbricordes as a cause of the diarrhœal symptoms; but, although in no case was this parasite met with, the drug had a remarkable effect in restoring a healthy state to the bowels. His view is, that "sprue" is due to the action of a microbic parasite upon the products of digestion, which, being altered and rendered unfit for absorption, act as irritants to the intestine and cause the intractable diarrhœa; and, in support of this view, he quotes Dr. Thin (who, however, regards the affection as due to a condition of the mucous membrane, which ultimately passes into atrophy), who describes several kinds of organisms in the fluid motions, notably a special form of bacillus. The value of santonin in other than cases of intestinal worms could not be better shown, a dose of five grains (for adults) once daily sufficing to cure the diarrhœa in a few days.

The sprue, as met with among the foreign

residents of China, is almost unknown in this country. There, however, it is greatly dreaded; many physicians claiming that nothing but an entire change of climate will effect a cure. Fatal cases occur frequently. The term "sprue" as defined by Dunglison, signifies "trush" and is usually applied to the common aphthæ of children. The name has been incorrectly applied to the disease in China for the reason that the latter frequently begins with symptoms of stomatitis.

Union of Tendons by Sutures.

At a recent meeting of the Surgical Society of Vienna, Dr. Schüssler showed five patients from Billroth's "Klinik" where section of the tendons had been successfully united by stitches. During the year thirty of these cases had been operated upon. In searching for the cut end of the tendon it is recommended that a longitudinal cut of the skin should be made in the direction of the tendon, so that the cicatrix of the skin may not become involved in the union of the tendon, as the movement of the limb may thus become impeded. In all these cases passive movement was commenced between the third and fourth week, although the perfect healing took months. Prof. Dittel remarked that the history of these operations was interesting, and not of recent origin. Heister, in the year 1750, wrote a small treatise on the union of tendons by sutures, in which he has described several methods. Prof. Billroth expressed his entire satisfaction with the happy results in these cases, which were principally due to the antiseptic treatment. Before antiseptics the wounding of tendons was a serious matter, as pyemia or other blood poisoning was not uncommon. But even yet in favorable cases there always remains a thick, hard cicatrix which prevents the free movement of the muscle.—*Medical Press and Circular*, Feb. 12, 1890.

Study and Examinations in Germany.

In a recent lecture by Dr. A. W. Schüddekopf, on "Universities and University Life in Germany," he said that the German student is much less frequently examined than his English brother; but then what an ordeal when it comes! Unlike the English system there is little or no paper work, the candidate being examined *vivâ voce*, more importance being attached to the grasp he shows of his subject and his manner of manipulating it, than to his knowledge of facts. Besides the *vivâ voce*, candidates have to write one or several "dissertations," which may take many months to prepare. Dr. Schüddekopf reminded his audience that, in Germany, University degrees are not considered to qualify candidates for masterships, for a license to practice medicine, and other offices, except in the case of candidates for a University professorship; but that candidates for such offices must have passed the "Staatsexamen," which in most cases is much more difficult than the degree examinations. Relating his own experiences in passing his "Staatsexamen," Dr. Schüddekopf caused a tremor to run through a sympathetic audience when he told that, after a year passed in writing "dissertations" on philological and philosophical subjects, he underwent nine hours *vivâ voce* examination in one day by eight German professors in as many different subjects! The majority of German students—except in the faculty of medicine—do not take a degree at all, but only pass their "Staatsexamen." It is the custom in Germany for a student to have been to several Universities before settling down at one for examination purposes—a system which the lecturer thought a very good one, on account of the facility it affords the student for becoming acquainted with the leading men in his subject.—*Science*, January 17, 1890.

Intestinal Concretions.

At a recent meeting of the Pathological Society of London, reported in the *Medical Press and Circular*, Feb. 12, 1890, Dr. Delepine read a paper on intestinal concretions, in which several cases of the affection were described, and the chemical structure of the enteroliths explained, these bodies being shown to consist of calcium salts aggregated round vegetable *débris* from ingested food. The retention of such substances through constipation or obstruction of the bowel afforded the opportunity for the deposit of the coating material upon them, and one case of an interesting nature was quoted, in which recto-vesical fistula was diagnosed from the presence of the outer coat of barley grains in the urine. In another instance, large quantities or concretions, due to olive oil taken for solution of gall-stones were found in the feces, and on examination proved to be made up of crystallized fats.

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CHARLES W. DULLES, M.D.,
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ADVANCE IN MEDICAL EDUCATION IN AMERICA.

A careful comparison of the Sixth Report of the Illinois State Board of Health on Medical Education, with the report for 1889, shows that there has been greater progress in the direction of a higher medical education during the period which has elapsed between these last two reports, than for any similar period in the history of the country; indeed, the progress has been greater than for half a decade. This is indicated by the increase of courses for instruction, like those instituted by the Johns Hopkins and Clark Universities, and by the fact that the number of colleges which require a graded course of lectures for three years, has increased twenty-five per cent.

Perhaps the most healthful sign that the people are awakening to the need of educated physicians is found in the passage of an act, in the State of New York, requiring a preliminary examination of students about to enter upon the study of medicine, by the Board of Regents of the University of that State. An attempt to repeal this law has been resisted by a popular outcry, which is the best possible evidence that an overwhelming public sentiment is behind the law. There has been an increase of six per cent. in the number of colleges requiring preliminary examinations, which is further proof that a popular sentiment exists favorable to raising the standard of general education for medical students, and the passage of medical practice acts by Florida, Tennessee and Oregon are evidences in the same direction.

Summarizing and comparing the tables in the Report, it will be seen that there are 139 colleges in existence, against 129 in 1886, and 131 in 1889: of these there are 126 in the United States and 13 in Canada at the present time. In the present report there are 149 institutions that are extinct, including 18 that were fraudulent.

In 1880 the number of colleges exacting certain educational requirements for matriculation was 45 (the Report we are quoting from says "1882" and "145," but these figures are typographical errors); in 1886, 114; in 1889, 117; in the present report, 124.

In 1882 the number of colleges requiring attendance on three or more courses of lectures was 22; in 1886, 41; in 1889, 47; in the present report, 64. In 1882, 42 colleges had chairs of hygiene, and 61 had chairs of medical jurisprudence; in 1886, 110 had chairs of hygiene, and the same number had chairs of medical jurisprudence; in 1889, 117 taught hygiene, and 112 medical jurisprudence; in 1890, 119 teach hygiene, and 114 medical jurisprudence.

The average duration of lecture terms in 1882 was 23.5 weeks; this rate gradually increased until in the present report it is 25.5 weeks, or an increase of two weeks.

The number of schools having terms of five months and more in the year 1882, was

101; in that of the present report is 121. The number having six months or more in 1882 was 42; in that of the present report (1889–90) it is 76.

There are now in the United States 22 licensing and examining bodies that do not give instruction. It is a matter of importance that the work of these examining boards should be as uniform as possible, in order to bring about the best results so far as medical education and the regulation of the practice of medicine are concerned. The difficulties incident to divided and limited jurisdictions would thus be overcome, and the work made broader and more national in its character. Unless this is done, owing to frequent changes of residence by medical men, repeated examinations become onerous, and in some cases work hardship. This is one of many good reasons for trying to secure co-operation and uniformity of action in issuing and recognizing certificates of examination by the various boards.

If this course is adopted, it will furnish facilities for the investigation of the character of applicants when removing to other States, as experience has taught that graduates having diplomas from some of the best medical colleges, or those who have passed a good examination, are frequently the greatest professional frauds and scoundrels. Knowledge of the history of these men, thus obtained, would assist in preventing their being licensed in other States, and would exercise a supervision over all which would do much towards upholding the *morale* of the profession.

There has been an increase since the last report of one college for women, there now being seven in the United States and two in Canada. The number of colleges for both sexes has increased by nine.

The total number of graduates in the United States in 1881–82 was 4,555; in the present report for sessions 1888–89 it was 4,337. The percentage of graduates to matriculates for the former period was 36.3; for the year 1888–89 it was 31.6.

The report gives a list containing names of 27 colleges which require three courses of lectures and a year of study with a preceptor, while in the report for 1889 there were only four. It is altogether probable that Harvard University Medical School, the College of Physicians and Surgeons in New York City, University of Pennsylvania, Johns Hopkins University, University of Michigan, Chicago Medical College and St. Louis Medical College, will in a short time require four annual courses of lectures. There are twenty-two colleges which require, or will require three annual courses of lectures, as compared with thirteen announced in the report for 1889, of which two, the Kansas City Homœopathic Medical College and the Physio-Medical College of Indiana receded from their announcements.

The present indications are that three-fourths of the Medical Colleges of the United States will, within the coming year, voluntarily adopt the regulation of this Board, made July, 1887, requiring that after sessions of 1890–91, graduates shall have had four years of study and attended three annual courses of lectures. The remainder will be compelled to fall into line, or cease their existence.

The above is from Dr. Rauch's Report to the Illinois State Board of Health; and we quote it, not only as justifying the hopes and expectations which have often been expressed in the REPORTER, but as furnishing evidence of the debt of gratitude which the medical profession in the United States owes to this admirable and indefatigable laborer in the cause of reform.

SEWER CONSTRUCTION AT RANGOON.

We learn from an interesting paper in the *Engineering and Building Record*, March 15, 1890, that a new system of sewerage has been put in operation in Rangoon, the capital of British Burmah. Rangoon is a city having a population of 100,000 persons, and is a flat and low-lying city on the bank of

the Rangoon River, which in spring tides and floods rises to the level of many of the streets. Under such conditions the construction of large sewers through the loose silt and water-logged ground, with the building and operating of a pumping station to discharge the sewage into the Rangoon River, would have cost so much that a cheaper solution of the problem was sought in the Shone system. The work was designed and carried out by Shone & Ault, civil engineers, of London, in a manner described and illustrated in the paper referred to. The city is divided into twenty-two sections or districts. In each district the houses are connected with iron gravitation pipes six inches in diameter, which in turn are connected with a hydro-pneumatic ejector station, from which the sewage is forced into an iron sewage main and thence into the river near the town and at a level three feet below that of the lowest tide.

The power that expels the sewage from the ejectors is compressed air, which is produced at an air-compressing station, and is supplied to each ejector by a small cast-iron pipe connected with the automatic valve fixed on the top of the ejector. The sewage gravitates from the sewers through an inlet pipe into the ejector and gradually rises therein, until it reaches the under side of a bell at the top. The air at atmospheric pressure inside this bell is then inclosed, and the sewage continuing to rise outside and above the rim of the bell compresses the inclosed air sufficiently to lift the bell, spindle, etc., which opens the compressed air admission valve. The compressed air thus automatically admitted into the ejector presses on the surface of the sewage, driving the whole of the contents before it through a bell-mouthed opening at the bottom, and through an outlet pipe into the iron sewage rising main or high-level gravitating sewer, as the case may be. The sewage can escape from the ejector only by the outlet pipe; the instant the air pressure is admitted on to the surface of the fluid the valve in the inlet pipe falls on its seat and prevents the fluid from escaping in that direction. The fluid passes out of the ejector until its level falls to a cup at the bottom of the ejector, and still continuing to lower, leaves the cup full until the weight of the liquid in the portion of cup thus exposed and unsupported by the surrounding liquid is sufficient to pull down the bell and spindle, thereby reversing the compressed air admission valve, which first cuts off the supply of compressed air to the ejector and then allows the air within the ejector to exhaust down to atmospheric pressure. The outlet valve then falls on its seat, retaining the liquid in the sewage rising main, and the sewage flows into the ejector through the inlet again, driving the free air before it through the air valve as the sewage rises, and so the action goes on as long as there is sewage to flow and compressed air is supplied.

This ingenious system includes, it will be seen, the use of the river as a place of deposit for the sewage. This is an objection to any modern sewerage system, and one which we trust will some day be done away with forever. But the system for Rangoon has the advantage that it could be adapted to any method for the utilization of sewage which might commend itself to the judgment of the government hereafter. It provides a system by which the sewage can be conveyed, in sealed pipes, from the various points of connection to the point of final discharge; and that point could be as easily a station for burning or utilizing the solid residue, as the river.

The system as described in the paper from which our facts have been taken, is well worth the study of sanitary engineers and of physicians interested in the study of sanitary questions.

ENTRANCE OF AIR INTO VEINS.

The *Bulletin Médical*, April 2, 1890, contains a report of a communication recently made by M. Cassaet to the Society of Anatomy and Physiology of Bordeaux, bearing upon the very important question of the re-

sults of the fact of entrance of air into the veins. It seems that M. Cassaet was doing a tracheotomy, without anæsthesia, upon a young man twenty-nine years old, with tuberculosis and stenosis of the larynx, who was suffocating. In the operation M. Cassaet cut a superficial large vein in the neck, which he had distinctly seen in the line of the incision a short time before. The opening of the vein was accompanied by a very distinct whistling sound, which seemed to indicate that air had been admitted to it. The vein was immediately caught and tied, and the operation was suspended. The patient gave no immediate evidence of having suffered any harm by the accident. On auscultating the heart, M. Cassaet discovered the following interesting points: Over an area covering about ten centimeters, the centre of which corresponded to the region of the tricuspid valve, there was heard a very distinct bubbling noise, of a metallic character, which was synchronous with the systole of the heart. This region seemed to extend, and at the same time the bubbles seemed to become gradually more numerous and larger. After a time the noise became more and more limited to the region of the tricuspid valve, and the bubbles diminished in volume, somewhat in the manner of the noise of a large râle, which by successive stages is converted into a subcrepitant râle. The bubbling sound disappeared after twenty-five minutes. In spite of the presence of this enormous quantity of air in the heart there was no serious disturbance of the pulse or respiration. The dyspnœa which had existed before the accident did not become any more intense. The pulse became gradually soft and compressible, but this improved as the bubbling sound disappeared. After a lapse of twenty-five minutes the patient for the first time presented some symptoms of asphyxia—cynanosis, chills, perspiration, and apnœa, which, however, ceased immediately upon the application of electricity.

The operation of tracheotomy was then resumed and completed. Some hours later the patient desired to be raised up upon a chair, and the attendant had hardly done this when he suddenly died.

At the autopsy, in addition to the lesions of tuberculosis in the larynx, the trachea and the lungs, the heart was found to be distended by a clot, and the arteries and veins with black blood, which did not contain any bubbles of air. The divided vein was discovered at the level of the lower end of the incision.

It appears from this account that the patient inspired a quantity of air into his heart and that this did no immediate harm, although after a short time—twenty-five minutes—there were manifestations of depression and suppressed aëration of the blood, which may have been due to the passage of the bubbles into the lungs, and their very general dispersion through them. It is possible also that in this way the blood became freed from the air, although it is hard to understand how this could have made the circuit of the circulation without producing any manifestations until it arrived in a very finely divided condition—as it must have done—in the lungs; and that there, when so finely divided, it should have produced cynanosis. In fact it is very hard, without very careful reflection, to draw any precise conclusions from the report of this case. None the less it is an extremely interesting one, and deserves to be placed on record as a contribution to the study of the subject of the entrance of air into the veins. Those who are familiar with the records of the subject, and who have had some experience in analyzing reports of cases in which it is supposed that air has found entrance to the veins of man, may be able to eliminate from this account the elements of error or uncertainty in its details, and to deduce from its more certain points some useful lessons of theory or practice in regard to a subject which has lately attracted considerable attention, and which is at all times one of great importance.

THE CURSE OF STREET MUSICIANS.

The Medical Profession has an immediate interest in everything which concerns the health and comfort of the community, and is sensitive to many sources of injury to health which sometimes seem rather trivial to those less familiar with sickness. One such source of injury is the distress and nerve strain caused by street noises. There are in every city thousands of persons, day and night, who lie on beds of suffering, of weakness, or of weariness, longing for sleep, and finding its approaches scared away by sounds from the streets. Some of these sounds are unfortunately unavoidable. But the more of these there are, the more is it important that those which may be prevented should be removed from the list of afflictions of city life.

Just now we invite the attention of the readers of the MEDICAL AND SURGICAL REPORTER to the injury inflicted by strolling musicians in all cities. Of late years these have multiplied to such an extent that scarcely any season of the year, or any time of day, or any part of a large town is wholly free from the blaring strains of brass instruments or the horrible confusion of the modern hand-organ.

The experience of every physician must have furnished him with illustrations of the damage these noises do to the sick: the children waked from the sleep which their poor little frames needed; the old people, robbed of their short respites from wakefulness; the brain-weary, cheated of their release from care and thought; the nervous, irritated and exasperated almost to madness —in fact, every physician must look upon strolling musicians as a source of most serious injury to health as well as to comfort. For this reason the physicians of Philadelphia will be glad to know that an attempt is being made to curtail the extent of the harm done by them in this city. An ordinance will be considered in the City Councils next week, which gives to householders the right to require any street musician to "move on," if disturbing him or his family, and we hope it will pass. We have only one thing to suggest in regard to it, and that is that it might be amended so as to give to every person whatsoever the right to require street musicians to depart, and not to householders only.

Those of the readers of the REPORTER as have opportunity will do their fellow-man a service if they will use their influence to have them delivered from the source of distress and suffering which is to many a veritable curse.

STATISTICS OF PASTEUR'S TREATMENT OF HYDROPHOBIA.

The *Journal de Médecine*, March 30, 1890, contains a list of persons who have died after receiving the so-called "preventive treatment" at the hands of Pasteur and his assistants in Paris, giving in each instance the name of the individual and other details. The whole list includes ninety cases. The editor, referring to it, calls attention to the great contrast between the claims of Pasteur and his followers that the method is a humane and useful one, and the fact that since it has been practiced there has been an actual increase in the number of deaths from hydrophobia in France; and he might have made the case appear much more impressive by adding to the list of deaths the vast number which it is claimed would have succumbed to hydrophobia if they had not been treated by Pasteur. The total is a number which would be incredible to any calm and critical investigator familiar with the history of hydrophobia in France and elsewhere; and it is astonishing to see how unrecognized this fact is in general, and how unreservedly the statistical juggling of Pasteur and his followers is accepted by many medical men.

PARACRESOTINIC ACID. — Paracresotinic acid is the latest addition to the interminable list of antipyretics. From 2 to 3 drachms of the sodium salt have been given within the space of 24 hours.

Book Reviews.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the Reporter.]

MANUAL OF SKIN DISEASES, WITH SPECIAL REFERENCE TO DIAGNOSIS AND TREATMENT, FOR THE USE OF STUDENTS AND GENERAL PRACTITIONERS. By W. A. Hardaway, M. D., Professor of Skin Diseases in the Missouri Medical College and in the St. Louis Post-Graduate School of Medicine. Square 8vo, pp. viii, 434. St. Louis: Theo. F. Lange, 1890. Price, $3.00.

The present book is an outgrowth of Dr. Hardaway's lectures on dermatology. While it has developed into a much larger book than the author had originally planned, he states in the preface that he has endeavored to keep it within moderate compass, and to make it a trustworthy guide, especially in diagnosis and treatment. The first part of the book consists of a general introduction to the study of skin diseases, the second of an alphabetical arrangement of diseases for ready reference, and the third of an appendix containing additional formulæ and a diet table.

The style of the author is pleasing; it is terse, direct and clear. We have examined a number of the sections and are glad to say that the directions for treatment are very good, and as a rule not too difficult for a student and general practitioner to comprehend and execute. The author states his own opinions distinctly but modestly, and at the same time does full justice to the opinions of well-known authorities in this department of medicine. We can cordially commend the book to our readers.

THE DISEASES OF CHILDREN, MEDICAL AND SURGICAL. By Henry Ashby, M. D., Lond., Physician to the General Hospital for Sick Children, and G. A. Wright, B. A., M. B., Oxon., Asst. Surgeon to the Manchester Royal Infirmary, and Surgeon to the Children's Hospital. 8vo, pp. xix, 631. London: Longmans, Green & Co., 1889. Price, $6.00.

It gives us great pleasure to recommend this book to the readers of the Reporter. It is a thoroughly good book in both matter and manner, comprehensive, concise, and thoroughly readable. Dr. Ashby has written of the Medical Diseases of Children, and Mr. Wright of the Surgical Diseases of Children. Each has done his work well, and it can be said that the practitioner will find an ample description of almost every diseased condition to which children are subject, together with sound advice concerning its management

The publishers have issued the book in good style. The paper, printing and illustrations are all good. The use of block-letter headlines has added to its usefulness as a work of reference.

New Remedies and Appliances.

In this department, notice will be given of Remedies, Food Articles, and Instruments or Surgical Appliances of which specimens are sent to the Editor; it will bear the same relation to these articles that the department of Book Reviews now does to books.

Fairchild's Pepsin.

Fairchild's pepsin has become so well and widely known that it has little need of special commendation. A specimen just sent us is handsome, and we have little doubt has the strength and purity claimed for it. Years of experience with the preparation of pepsin and pancreatin sent out by Messrs. Fairchild Bros. & Foster have led us to a confidence in them which it is a pleasure to express.

Notes and Comments.

Treatment of Peritonitis.

In a paper read at the recent meeting of the Alabama Medical Association, Dr. W. E. B. Davis, of Birmingham, Ala., said that, from a study of the experiments of Pawlowsky, Grawitz, Wegner and others, he thinks the following points pretty well settled:

First. Simple peritonitis, when caused by a sufficient quantity of a chemical irritant, will produce death by the extent of the inflammation.

Second. Simple inflammation may terminate in septic peritonitis, by producing a weakened condition of the walls of the intestines, which permit the passage of septic germs from the intestinal canal into the peritoneal cavity.

Third. While pathological germs in a small quantity may be absorbed by the healthy peritoneum, without producing a peritonitis, the same quantity combined with a chemical irritant may produce a violent inflammation—the irritant having prevented the absorption of the germs and caused the exudation of a nutrient fluid for their multiplication.

Fourth. Large quantities of septic fluids and microbes always produce suppurative peritonitis; yet, a small quantity of either may be absorbed and destroyed, unless the peritoneum has been weakened by antecedent pathological changes.

Fifth. A septic fluid may gravitate into dependent parts of the peritoneum, and become shut up, either by plastic inflammation, or by a coil of intestine, and thus be prevented from producing diffuse peritonitis, but after a time this may rupture and produce death from general peritonitis.

Sixth. The germs of septic peritonitis will be found in the kidneys and other organs of the body, and in greater quantities, according to the extent and duration of the inflammation.

Seventh. The condition of the peritoneum and the nature and quantity of the

septic product will determine the rapidity of the inflammation, which usually ends in from 48 hours to 6 days, but death may be produced from shock in a few hours. Tubercular inflammation is always slow in its progress.

From a consideration of the foregoing principles, he says the following indications for treatment must be arrived at:

1. Promote absorption of the inflammatory products of simple peritionitis as rapidly as possible, and thus relieve the inflammation and prevent the possibility of septic peritonitis.

2. In the early stage of peritonitis, whether simple or septic, where the cause cannot be determined, hasten the absorption of inflammatory products, etc., with purgatives.

3. When medical treatment fails to give relief, septic fluids should be removed by operative procedure.

4. In localized peritonitis—with circumscribed pus formation—the pus should be removed and the abscess cavity drained.

5. In acute septic peritonitis, operative procedure must be adopted early or there will be no chance of recovery offered by the operation, as the inflammation will become more extensive the longer it continues, and, too, there will be so great a quantity of septic germs absorbed into the system, that death will result from toxemia, even though the local inflammation should be remedied by a late operation.

He quoted from Habershon and others, and states that it has been demonstrated, that in the large majority of cases, that peritonitis is a symptom of some well-recognized lesion of the abdominal or pelvic viscera, and that the only rational treatment must be based upon this conception of the disease. Peritonitis is not a "disease distinct," as taught by Bichat, and upon which teaching the treatment of Alonzo Clark gained such great popularity. The "opium splint" is irrational, for it not only locks up the products of inflammation, but as shown by Wylie, Johnson, Baldy and others, and by his own experience, subjects the patient to one of the greatest dangers of the disease, viz.: obstruction of the bowels from adhesions.

In the case of perforation of the bowel, opium is indicated to relieve pain and shock, and to prevent peristalsis, and further escape of the intestinal contents into the peritoneal cavity. Again, morphine hypodermically may be used, with benefit, in some cases when there is persistent and uncontrollable vomiting; but at the same time, calomel in small and frequently repeated doses, may be dropped on the tongue and the bowels induced to act. There are many cases in which it is absolutely necessary to give a hypodermic injection for pain, but this should never be given in such doses as recommended by the advocates of the opium treatment, and should not be administered at all unless the patient's condition is being made more grave by the shock provoked from pain.

The first two indications for treatment are best met by free purgation, as taught by Tait and others, and the majority of those who have adopted this plan select the magnesium salts, as they produce very large watery stools. When the stomach rejects salts, calomel may be used.

He refers to a large number of cases treated by him in the most satisfactory manner by purgation—and among them several cases of threatened peritonitis, after laparotomies. During the past year he has not waited for symptoms of peritonitis after a laparotomy, but begins the use of small doses of salts, and if not retained, of small doses of calomel, a few hours after the patient gets from under the influence of the anæsthetic, and aids the purgative by the administration of enemas of milk and whiskey every third hour, which relieve thirst, and stimulate and nourish the patient, if retained.

In these cases he has had to give an occasional hypodermic of morphine, but this did not prevent the bowels acting. He has had to depend on calomel oftener than salts, as it was not rejected. He reports cases illustrating how purgative treatment aids in diagnosis, and others to show how all symptoms may be masked by opium, and an operation delayed too long—and concludes by stating that it is very important not to resort to the free use of morphine, unless an operation has already been decided on, and this administered to relieve pain and lessen shock.

Abdominal Surgery in Cuba.

According to Dr. Barrena, the results of abdominal surgery, as practiced by himself and some of the other leading surgeons in Cuba, have hardly been as satisfactory as could be desired. Of 39 cases of ovariotomy, 12 were fatal. Of 11 cases of hysterectomy

no less than 9 were fatal; 3 cases of miomotomy, 3 of salpingotomy, and 1 of ligature of the tubes, were all successful, but 4 cases of exploratory incision proved fatal to 3 of the patients, and the only case of vaginal hysterectomy was also fatal. Altogether, out of 62 persons operated on, no less than 25 died. It is to be hoped that this courageous statement of actual facts may tend to deter surgeons, who might otherwise be induced by the brilliant results of abdominal operations frequently published, from entering with too light a heart upon operations of this nature. The unfavorable results referred to may, perhaps, be partially explained by the insanitary condition of Havana, and probably of other Cuban cities. This subject was also treated during the Congress by Dr. Wilson, who pointed out that the bad water and want of a proper system of sewerage, together, doubtless, with the heat and moisture of the climate, raised the death-rate of Havana to a figure about double that which denotes the death-rate of London.—*Lancet,* April 5, 1890.

Tuberculosis in Cattle.

In the *Allgemeine Medicin Central-Zeitung*, April 16, 1890, there is a communication of Prof. Eggeling to the Farmers' Club in regard to tuberculosis in domestic animals and especially in cattle. Eggeling, in this, discusses particularly the etiological relations of tuberculosis, and says that heredity plays a very small part in this disease in cattle, and he thinks it is more dependent upon infection from breathing in or eating infectious matter. The course of tuberculosis in cattle is a relatively tedious one, so that half a year may pass by before a cow which has been infected by a tuberculous neighbor will show the first signs of the disease. It advances more rapidly in young cattle; and calves which have ingested tuberculous milk succumb very rapidly: probably because their immature organs have less power of resistance to the invasion of the tubercle bacillus. The diagnosis of the disease thus is exceedingly difficult in the early stages, and its cure is by no means easy. Therefore it is desirable that diseased cattle should be destroyed as the only safe means to a thorough cleansing and disinfection of the place. In regard to the possibility of the communication of tuberculosis to human beings by ingestion of the milk of tuberculous animals, Eggeling recommends that only such milk shall be used as has been collected from a large number of animals in a herd, so that by the mingling of healthy milk with that of diseased animals the proportion of infectious matter shall be reduced.

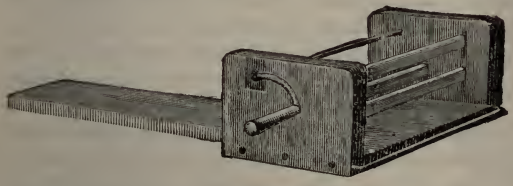
Teeth in Ovarian Cysts.

The subject of minute examination of the teeth found in ovarian dermoid cysts has not, in the opinion of Mr. Bland Sutton, received attention commensurate with its scientific interest. The age at which these teeth develop is uncertain: for instance, cases have occurred where ovarian cysts in children maintain fully formed teeth; whereas in adults they may be found only in a very early stage of development. Nor is there any certainty as to the time of eruption or shedding of these teeth, being in this respect unlike hair, which becomes gray and falls out concomitantly with the hair of the head. The number of teeth in ovarian cysts varies considerably, two to four being common, but it may reach three to four hundred. Owen, Salter, Coleman and Tomes mention ovarian teeth, but give only meagre descriptions of them. Ovarian teeth have enamel and dentine, the enamel being generally irregular, with deep fissures and pits. They may be like normal buccal teeth surrounded by a bony alveolus, and possess an alveolar-dental periosteum, and this resemblance to the upper or lower jaw has given rise to the erroneous idea that dermoid cysts are included fetuses. In shape these teeth may be divided into three groups—multi-cuspidate, bi-cuspidate and canineiform. As a general rule the crown and fang are in inverse proportions as to size, and multiple fangs are very exceptional. The cementum varies considerably; sometimes there is only a thin layer on one side of the fang; in other cases it is absent altogether. Salter described nerves as being distributed to ovarian teeth, but this has not been confirmed. In one especially suggestive case, where two ovarian cysts were present, Mr. Bland Sutton found in one tissue indistinguishable from brain matter, and in the other teeth, in which, however, he was unable to demonstrate satisfactorily the presence of nerves. The microscopical specimens exhibited of developing ovarian teeth showed that the type follows that of normal buccal teeth, there being a papilla and a

dipping down of epithelium to form the enamel organ. The theory that caries ever takes place in ovarian teeth is altogether unsound, and is due to the deceptive appearance of the enamel, which is often of worm-eaten character, the ravines and pits filled with fibrous tissue, which in macerated specimens leaves a cavity much resembling caries; in other cases, moreover, the pulps may absolutely penetrate the enamel. Mr. Charters White supplemented the paper with a description of the irregular arrangement of the enamel and dentine in these teeth as shown under the microscope. — *Lancet*, March 8, 1890.

An Improved Bandage Roller.

For over a year past a new bandage roller, devised by Mr. John Borham, one of the attendants, has been in use at Bellevue Hospital and several other public institutions.



This presents some features which make it preferable to any other bandage roller we are acquainted with.

The apparatus will be readily understood by examining the illustrations. A piece of bandage muslin, of a width somewhat narrower than the inside space of the roller, is passed behind the metallic bar in front of the bottom board, then over the three wooden rectangular bars which at the same time secure the two side frames together, and having been adjusted by its edge to the square steel axle the latter is turned by means of a winch, thus winding the muslin tightly and smoothly upon the axle in any thickness compatible with the distance of the nearest bars. It will, of course, be readily understood that during the passage of the strip of muslin over the several sharp-edged wooden bars, every crease and unevenness is removed from it, so that the final roll produced upon the axle is perfectly homogeneous. The axle itself is slightly tapering from the winch towards the other end, and when the roll has arrived at the proper thickness, and the muslin has been cut, it is simply pulled out. The roll may then be cut with a sharp, flat-bladed knife into bandages of any desired width.—*American Druggist*, April, 1890.

Phthisis Treated with Calomel.

Dr. Dochmann, in the *Deutsche Med. Wochenschrift*, Feb. 13, 1890, recommends calomel in the following formula, in the treatment of incipient phthisis:

℞ Hydrag. chlorid. mitis . . . . . gr. x
Pepsini . . . . . gr. lvi
Tinct. opii . . . . . gtt. xxx
Extr. phellandrii . . . . . q. s.
Fiant pillulæ nos. lx.

The above formula will be found especially useful. The gastric complications are marked. In hemoptesis the opium may be replaced by ergot; and, if the cough is severe, extract of hyoscyamus may be substituted.

Parasitic Fetus.

The *Lancet*, February 22, 1890, says that one of those singular malformations described as "parasitic fetus" has been attracting some attention at Demerara. A coolie was admitted into the Colonial Hospital suffering from a tumor in the right loin. The man died, and at the *post-mortem* examination the tumor proved to be possessed of a cranium, with hair attached, an imperfect nose and mouth, no hands or feet, but the rudiments of male genitals. The subject of this "autosite" was thirty-two years old.

NEWS.

—The Massachusetts State Board of Lunacy and Charities has formally ordered the return to Europe of a leprous Swedish woman, who arrived in Boston on April 28.

—Supervising Surgeon-General Hamilton, of the Marine Hospital Service, reports that the new fumigating steamer is now in service at the United States Quarantine Station at the Delaware Breakwater.

—The annual meeting of the Medical Society of New Jersey will be held in the Heath House, Schooley's Mountain, on Tuesday, June 10, 1890, at 4 P. M., and will continue in session the following day.

—Dr. John H. Douglas, General Grant's physician at the time of his death, is lying ill at the Presbyterian Hospital, New York. He is stricken with paralysis, and, moreover, is understood to be in reduced circumstances.

—Dr. Samuel Rush Haven, of Chicago, died suddenly in Joliet, Illinois, on Monday of paralysis. He went out with the first troops as a brigade surgeon under General Grant. He was a native of New York State, having been born in Sheridan, Chautauqua county, in 1827.

—The latest improvement at the Biological School of the University of Pennsylvania is a tank for water plants which is to have a surface of 1,000 square feet. Special facilities for the cultivation of these plants are rare in the United States and this undertaking of the University is therefore particulary interesting.

—Dr. Jennie McCowen has been re-elected President or the Davenport (Ia.) Academy of Natural Sciences by unanimous vote. Dr. McCowen was one of the earliest women members of the New York Medico-Legal Society. She was last year elected one of the Vice-Presidents of the International Medico-Legal Congress.

—The Chenango County Poorhouse and Insane Asylum, located at Preston, a few miles west of Utica, N. Y., was entirely consumed May 7. There were no provisions for extinguishing the flames. The keepers and neighbors gave their attention to getting out the 125 paupers and insane and let the building burn. These were all rescued, but 11 idiots are missing.

—The Longue Pointe Lunatic Asylum, ten miles from Montreal, Canada, was destroyed by fire May 6, and about 50 of the inmates are believed to have perished in the flames. The asylum was under the charge of the Sisters of Providence, and several of the sisters lost their lives in trying to save the patients. The asylum was founded in 1873, and the amount spent in organizing the institution was $1,132,232, of which the buildings cost $700,000.

—Delegates from the leading Societies and Colleges of Pharmacy in the United States met in convention in Washington, D. C., May 8. The work of the convention is confined to making a general revision of the pharmacopœia and of collection of formulæ used by physicians in their prescriptions. Officers were elected as follows, to serve for ten years: President, Dr. Horatio C. Wood; Vice-Presidents, Drs. W. S. Thompson, D. W. Prentiss, J. M. Flint, A. E. Ebert, and J. W. M. Searcy, of San Francisco; Secretaries, Dr. H. A. Hare and Dr. G. H. C. Klie.

—On May 7 the Memorial Pavilion (children's ward) at St. Luke's Hospital, Bethlehem, Pa., erected to the memory of the son of Mr. and Mrs. E. P. Wilbur, was formally presented to the hospital by them. Dr. Lamberton, President of the Lehigh University, presented the ward to the hospital in the name of the donors, and Dr. William G. Cattell, of Philadelphia, First Vice-President of the Board of Trustees, received the gift for the hospital. The ward is a building of handsome and modern construction, and contains twelve cots and five bedrooms. The ward cost $40,000.

—Over one million dollars is divided among public and charitable institutions of Philadelphia by the late George S. Pepper, according to the terms of his will. Among the endowments most interesting to the profession are the following: University of Pennsylvania, $60,000 for the endowment of a professorship, to be selected by William Pepper, M. D.; Hospital of the University of Pennsylvania, $50,000; Presbyterian Hospital, $50,000; Hospital of the Protestant Episcopal Church, $50,000; Orthopædic Hospital, $25,000; Pennsylvania Hospital, $50,000; Hospital of the Jefferson Medical University, $50,000; Charity Hospital, $25,000; St. Joseph's Hospital, $25,000; Children's Hospital, $25,000; Wills Hospital, $10,000; St. Christopher's Hospital for Children, $25,000; Hospital and Dispensary of St. Clement's Church, $10,000; Children's Hospital, Country Branch, $10,000; Maternity Hospital, $25,000; Northern Dispensary, Southern Dispensary, Philadelphia Dispensary, Howard Dispensary, each $5,000.

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CLINICAL LECTURES.

DOUBLE DRAINAGE FOR WOUNDS.—EPITHELIOMA OF THE LIP.—OPERATION UNDER COCAINE.—CIRSOID ANEURISM OF THE LEFT TEMPLE.—LIGATION OF RIGHT CAROTID ARTERY.[1]

BY W. W. KEEN, M. D.,

PROFESSOR OF SURGERY IN THE JEFFERSON MEDICAL COLLEGE.

Double Drainage of Wounds.

Gentlemen: I have frequently insisted upon the advisability of double drainage, or, as I call it, the combined tubular and capillary drainage, for wounds; and I have brought here to-day some dressings to show you why I have done so. You will remember the case of cancer of the breast on which I operated a week ago. Here I show you the first dressing and the tubing, which, as is my custom, I renewed at the end of twenty-four hours. Notice how thoroughly saturated the dressing is with the bloody oozing which always follows an extensive wound. How uncomfortable this stiff, harsh dressing would be if retained. For this reason I always re-dress my cases in twenty-four hours, not only to replace the blood-saturated dressing, with its danger of infection, but also to remove the drainage tubing, which is no longer needed. Another reason for removing the tube in twenty-four hours is that if I left it in for a week or more a sinus would result. I left the horse-hair in, however, to carry off the slight serous discharge of the next three or four days, and removed it with the second dressing, which I here show you. Notice how slightly it is stained with serum. At the second dressing I removed the horse-hairs, one or two at a time, so as to disturb

[1] Delivered at the Jefferson Medical College Hospital.

the nearly healed wound as little as possible, and I also removed the alternate stitches. The last dressing and final removal of the stitches will be done to-morrow. No better argument than these dressings, and the resulting early healing without any drainage sinus, could be presented as a reason for the more frequent change of dressing than many surgeons still make.

The shoulder case I operated upon four days ago I dress before you now for the second time. Here is the first dressing, which is quite bloody. The second dressing you now see shows but little oozing, only serous in nature. I shall remove the horse-hair to-day, cutting it close at one end so as not to injure the partly healed surfaces by drawing the rough and matted ends through the wound, producing pain and, at the same time, separating the slightly united surfaces. All this minute attention to details contributes to that absolute rest which is needed to secure early and complete healing. I will now remove the alternate stitches, and at the next dressing three or four days later I will remove all of the remaining sutures. Here is her temperature chart, and 99.6° is the highest record. It is a normal operation chart.

Epithelioma of the Lip.

The next case I have to show you is one of epithelioma of the lower lip. The patient is a man, 53 years old. We never see this disease in a young man. Six years ago, he first noticed a little eruption upon his lip which slowly increased in size. Six months later this was cauterized and its growth in this way retarded for two years. For the past three years and a half, however, it has been slowly growing until it has reached its present size, which is about that of my thumb-nail. His physician told him it was due to the smoking of his pipe. This would be very possibly, but not certainly, the case. One thing is certain clinically, that this form of disease is, curiously, limited almost entirely to the lower lip, and is far more frequent in men than in women. It is the least noxious and fatal of all the forms of cancer. There is but one cure for it, and that not always a cure: namely, early excision of a V-shaped piece of the lip including the growth, and the drawing together of the edges. The only point especially to be borne in mind is that whatever means of approximation are used, it must go down to the mucous membrane, or the coronary arteries will give rise to a serious and even dangerous hemorrhage.

There is another point in connection with an epithelioma of the lip which is worthy of remembrance. If you are called to see a patient, especially if it be an old man, with an abdominal growth, or a tumor in any other portion of the body, and notice an old scar upon his lip, especially upon the under lip, examine such a growth with care, for you have good reason to believe that it may be a cancer.

Operation under Cocaine.

In this case I will not etherize the patient, but will try an injection of a 4 per cent. solution of cocaine. This has been injected around the growth ten minutes ago, and I shall now take out a small V-shaped piece of the lip. I shall put a large pair of spring forceps on either side of the lip which will control the hemorrhage to a large extent. On removing the V-shaped piece you will observe that the arteries are very nicely controlled by the forceps. In inserting the pins, I always take first the one next to the free border of the lip so as to control the hemorrhage and get an accurate approximation of the mucous surfaces so as to make the lip as sightly as possible. Three pins are inserted, and with two or three turns of the ligature the bleeding is entirely under control. After taking off the free points of the pins I apply a simple dressing. The patient tells me he has experienced no pain whatever. Corning has suggested that a round rubber pessary, or other similar means, may be used to keep the cocaine in the tissues, this is in many cases a very useful hint.

Cirsoid Aneurism of the Left Temple.

The next case is an exceedingly serious one, and one in which there has been a good deal of surgical interference already. The history of the case is as follows: The young man is twenty-two years of age. Twenty-one months ago, while playing ball, he was struck by the ball upon the left temple, and knocked down. He remained dazed for fifteen or twenty minutes. On rising he noticed a small swelling of the size and shape of a peanut. This is quite different from the ordinary swelling arising from a blow, which is more diffused and globular, and points probably to a very localized lesion, probably of the temporal artery or one of its branches. This swelling was hard and painful on pressure. Five months afterwards, while throwing a

ball, he felt something give way here, and there has been a heavy pulsation ever since. On August 29, 1888, and again upon November 6, 1888, he was operated on by Dr. Barton, who ligated the left common carotid, and pinned the small branches supplying the swelling at the first operation. This did not prove successful. He then surrounded the growth entirely with large pins and a double row of ligatures. This controlled the circulation, and was followed by an apparent cure for some months. The growth then returned, and he injected alcohol around the swelling to produce a coagulation of the blood. Ten to twelve hypodermics were given every other day, and this again appeared to result in a cure. It has, however, again returned, and the young man is now more than ever in serious need of assistance.

This is a cirsoid aneurism, that is, an aneurism like a varix. An aneurismal varix is a single vessel which has become tortuous and dilated. The cirsoid aneurism covers in the whole of the temple, the side of the cheek in front of the ear, and lower part of the scalp. There is great dilatation and elongation of all of the vessels here, not of the veins so much as of the arteries; and more than this, at three places there are localized dilatations or really aneurisms of the vessels. The seat of such conditions is usually upon exposed sites, such as the head and the hand, and not seldom in the orbit. The cause here is clearly an injury; but they may occurr congenitally as seen in a modified and much less serious form in cases of ordinary nævus.

On this man's head is a large mass rising to from one to one and a half inches above the normal level of the scalp. It is sacculated in appearance and soft to the touch. I am able to squeeze all of the blood out of it. If I put my ear to it, either directly or through a stethoscope, I can hear a distinct aneurismal bruit; if I compress it lightly I can get an aneurismal thrill. If I squeeze out all of the blood from the sac and then apply pressure at its upper part, on the deep temporal arteries, the sac slowly fills again as the blood leaks in through other vessels, but if no such pressure is applied it instantly refills, thus showing that its chief supply is by the deep anastomoses. The occipital artery, which was pinned by Dr. Barton, is again pulsating. In the right carotid there is very marked pulsation, showing that it also is dilated, while the left carotid, which was tied eighteen months ago, has become pervious above the ligature, and is beating forcibly. Dr. Barton also ligated the left internal jugular vein. The external jugular vein of the left side is now dilated, as are also the superior thyroid vein and artery of the same side. The walls of this sac are thin, and if left alone it will eventually give way, and the man will die of a sudden hemorrhage. The diagnosis here is easy. The trouble all lies in the treatment. In the *International Encyclopædia of Surgery*, Wyeth has given in tabular form the results of the treatment pursued in such cases. In seventy-three cases the common carotid was tied, and of these twenty-one died, and of the fifty-one who recovered only twenty-seven were cured—a little over one-third. Both carotids were tied in nine cases, with two deaths. So in this direction we have not a very promising outlook. Excision can be tried, and in certain cases, where the tumor is not too large or deep, is the best plan. But here I think you will agree with me that to try excision would simply result in a fatal hemorrhage. Not only is the tumor supplied by the superficial vessels, but by the deep also, and from both sides. Another method, that of Barwell, of carrying a continuous deep buried suture all around the growth, and then drawing upon it like the string of a purse, is also not applicable, for it could not be made to include the deep-lying vessels. Nor is direct compression applicable here, and even were it safe to try this method, it must be done with great care, as it may produce an ulceration which would but hasten the fatal result. Injection of the perchloride of iron is an excellent method, and Dr. Barton employed an analogous one, the injection of alcohol, with good results. To-day I shall probably employ a combination of these methods.

I desire first to secure the peripheral vessels by means of a sharply-curved needle, tying the ends over an elastic rubber tubing. Then I shall tie the right carotid artery. This will be a matter of some difficulty, especially since the superficial veins are of considerable size and probably the internal jugular is large. The true line of safety always in tying the carotid, is to open its sheath away from the jugular vein, that is, towards the middle line. The line of the artery is under the anterior border of the sterno-cleido-mastoid muscle. I shall tie the artery in the triangle of election above the omohyoid muscle. I shall tie the common trunk, and

not the external only, so as to control the deep as well as the superficial anastomoses. This will be at not a little risk to the patient's brain, and may result in softening there, a risk that is much lessened by the dilated state of all the vessels. Then, or later, I may go on to the left side where the artery has become pervious through the anastomosis of the two superior thyroids and possibly of other vessels, and tie the artery there again at a higher level than before. Finally, I may inject some of the tincture of the chloride of iron into the tissues. Each step will be decided at the time. I now divide the skin and superficial fascia with the platysma myoides, thus reaching the sterno-cleido muscle. The incision is three inches long and the middle of it is opposite the circoid cartilage. Under the anterior border of this muscle I shall find the artery. Upon the outer side of the artery is the vein, and between the artery and the vein and behind them is the vagus nerve. I shall open the sheath of the artery well towards the middle line so as to avoid any injury to the vein, carefully loosen the artery, pass the ligature around it and secure it. The first thing to do is to find the superficial vessels and tie them but I am utterly unable to detect them, and I must, therefore, let them go until a day or two later, when, should I then find them, I will probably inject a little cocaine and pass a ligature under them. The size of the superior thyroid and external jugular veins is nothing to-day compared to what it was yesterday. I shall proceed now to tie the right carotid. I have now retracted the inner border of the sterno-cleido and I see the descendens noni nerve. I have now found the omo-hyoid muscle, and just above it I will tie the vessel. In the groove between the artery and vein is something which looks like the pneumogastric nerve. This might lie between and behind the vessels. Whether it really is the nerve or not I do not know. If it be it is a most unusual anomaly. I have now easily found the artery, and shall pass my aneurism needle, armed with silk, under it, and tie it, cutting the ends of the ligature off short, so as to get primary union. The rule is to pass the ligature first between the artery and its most dangerous neighbor the vein where you can see it and carefully guide the point of the aneurism needle. To reverse this method is to run the risk of puncturing the vein by the unseen point of the instrument. It is not uncommon to have a convulsion follow the ligation of the carotid by cutting off the blood supply to the brain. There is none following this, however, though there is a pallor of the face and scalp. I insert a small piece of drainage-tube here. Now on compression over the tumor I can feel only a slight thrill. His color is not very good, and as most of the access of the blood is arrested, I shall simply ligate a sub-cutaneous vessel here, and do nothing more to-day on account of his condition. In two or three days I will perform the other operation I have suggested.

SUBACUTE PERITONITIS. — PLEURISY WITH EFFUSION.[1]

BY ARTHUR V. MEIGS, M. D.,

VISITING PHYSICIAN TO THE PENNSYLVANIA HOSPITAL, ETC.

Subacute Peritonitis—Medication or Operation.

Gentlemen : I found this man in the hospital, yesterday, when I reached here. He was in my charge some years ago. He is thirty-eight years old. He says that he was in the hospital in March last with the same trouble that he now has ; but he seems to forget that in the summer of 1887 he was also here under my charge. His present sickness began two years ago with an attack of peritonitis. Since then he has always had pain in his abdomen, more or less severe in character. At that time his peritonitis was supposed to be tubercular in nature. On admission his bowels were regular ; he had pain in his left side over the sigmoid flexure ; the examination of his lungs and heart was negative ; his urine was acid in reaction, of a specific gravity of 1.026, and of a pale amber color. This was upon the fourteenth of November last. From this date the notes of the case run on without giving us any facts of special interest. On the twenty-sixth of November his abdomen was distended and tympanitic. On the twenty-third of January he got out of bed, and has been doing well since. This last attack, then, lasted about six weeks, during which time he was ill with pain and tympanites. Since then he has been better. His temperature sheet shows us no fever record. This is

[1] Delivered at the Pennsylvania Hospital.

a circumstance which is often noted in acute peritonitis, and is an important point to remember. His temperature was never above 99⅔°, except once, on January 3, when his physician, Dr. Longstreth, tells me this was due to an attack of influenza. We must remember, then, that it is possible to have an acute inflammation with no fever.

The man came into this house first in the summer of 1887, and was in a long time, suffering with a prolonged attack of subacute peritonitis, severe and obstinate, and accompanied with a tympanitic swelling of his abdomen, great pain, and obstinate constipation. In the summer of 1888 I saw the man acting as a coachman at a neighboring summer resort; and there he told me that he was experiencing some slight pain at that time. From this time he dates his trouble, and since then he has been under the weather with pain in his belly.

As I proceed now to make a physical examination of his present condition, I find nothing peculiar in his belly, except that it is rather full and tympanitic. He is a muscular man, but is not obese. On palpation, his belly feels a little harder to my sense of touch, but very slightly so; in technical terms there is here a slight degree of doughy induration. In an acute condition of an attack of peritonits you cannot touch a patient as I am doing here. This man has no pain. Palpation, then, reveals no tumor, nor any localized hardness of any kind, but only this slight degree of induration. Percussion reveals a moderate amount of tympany, but nothing which can be strictly called unnatural. I will now see if there is any enlargement or diminution in the size of the liver. Percussing in the nipple line, I find the liver to be normal as regards size. There is a slightly increased area of dulness in the splenic region. This does not indicate anything, however; for, if the colon should happen to be full of feces in this situation, we would have this same increase in the area of dulness.

The treatment I employed two years ago in this man's case was that which I am in the habit of using in cases not requiring operation. In the first place, the patient must be put in bed; but it is not as rigidly necessary to keep him flat upon the back in an ordinary case of peritonitis as it is in a case of typhoid fever. It is best not to give patients orders which they will not obey. Still, as a rule, if you can control the patient, keep him in bed. In the second place give him an absolutely liquid diet; small quantities at short intervals. Milk is the best substance to use; but this may be varied as required. Use stimulants if necessary to do so; but as an ordinary thing the patients do not require stimulation. Four ounces of milk every two hours is about the quantity of food which should be given.

As far as medication is concerned, one-quarter of a grain of powdered opium and one-twelfth of a grain of the extract of belladonna, every two hours, is what I give in these cases. At present a regular revolution is going on as regards the treatment of peritonitis. One man says: "Give opium;" and another says: "Give only purgatives, or you will kill your patient." My belief, however, is a middle one. If the case is a medical case and you do not need the advice of the surgeon, or his knife, I give the opium as I have suggested. This will not stupefy an ordinary patient in any degree, as it is claimed that it will do. It simply soothes the pain but will not stupefy the patient one iota. This I regard as the best treatment in such cases.

This plan of procedure cured the patient two years ago, and he returned to his work; but for the past year and a half he has been disabled. The aspect of affairs now is different from what it was then. For a year and a half some irritation has been going on in this belly. Here is a case where we should have the surgeon in, and secure his opinion as to what is going on. Here is a man who certainly has some irritative cause here. If he had had a tuberculous condition here, or a cancerous condition—but he is too young for that—two years ago, he would be dead by this time. There is probably here some other cause for the irritation. The risk is very slight in laparotomy; I think it is estimated at only one-half of one per cent. If this trouble goes on, it is very likely that it will kill the man. Some day, unless attended to, this patient will develop a purulent peritonitis and die. He may have a purulent peritonitis even now. I have seen a patient presenting no more symptoms than he does now, with a purulent peritonitis. The surgeon, therefore, should be called in. If there be found some trouble which can be removed, you have achieved one of the greatest triumphs in modern medicine. I should recommend, therefore, that the operation be performed, and that at once, for it can now be done with the greatest degree of safety.

Pleurisy with Effusion.

This patient is an Italian, twenty-six years of age. He says he has always been healthy. About four weeks ago he had an attack of influenza, lasting for ten days. He then returned to work, but was compelled to stop at once on account of severe pain in his chest. He had a chill and fever, followed in a few days by a cough and expectoration. He was admitted to the hospital on the second day of February, at which time he was suffering with great dyspnœa and pain. His temperature on the evening of admission was 101°, on the next morning 100°; and it has varied between 99⅖° and 100° and a fraction ever since. He has, therefore, had a moderate fever. Thinking himself well of his influenza, but not being well, he resumed his work only to be laid up again. He had been sick for two weeks before his admission into the hospital. I shall now proceed to examine him before you.

Inspection posteriorly shows no difference as regards the size of his chest. I cannot say positively from mere inspection which side is affected, but I should say that the interspaces bulge more upon the left side. There is no difference to be noted in the way the man breathes. In the same way expansion, as shown by palpation, seems better upon the right side. Percussion reveals a dulness upon the left side, which is not to be found upon the right side. At the left apex posteriorly there is a high-pitched tympanitic note; the percussion note at the right apex is normal. There is dulness in the left middle region posteriorly, as compared with the right. At the left base there is actual flatness, extending up to about the middle scapular region. The right base is normal. Anteriorly, the percussion note at the right apex is full, clear and natural; at the left apex it is high-pitched, short and tympanitic. Auscultation shows a good, clear, natural sound at the right apex posteriorly. At the left apex the sounds are somewhat restricted, and tend to be bronchial. In the right middle region the sounds are good, and vesicular expansion is good; in the left middle region there is no vesicular expansion, and only slightly tubular sounds. At the right base the sounds are natural; at the left base there are slightly distant, transmitted tubular sounds, otherwise absent respiratory sounds. Vocal resonance is much louder on the right than upon the left side, except a little above the middle portion of the left side, when it is quite loud. Vocal fremitus is good on the right side, weak on the left side and almost absent at the left base.

This is the condition found at the end of five days in the hospital. The interspaces are fuller upon the left side; expansion is feeble on the left side. Over the lower half of the left lung there is dulness of percussion, and almost entire absence of respiratory sounds. Vocal resonance is less upon the left than upon the right side, except at the root of the lung, where it is loud. Vocal fremitus is weaker upon the left side, and at the base is almost absent. What, then, is the condition here?

This can only be a pleurisy with effusion or a pneumonia. Of course, we have here a pleurisy. There is here a lessening of both vocal fremitus and resonance, while these are both increased in pneumonia. Then, there is an absence of respiratory sound, which is not the case in pneumonia. These signs, together with the bulging of the interspaces, all indicate the existence of a pleurisy with effusion and not of a pneumonia. It is a typical picture of a pleurisy with effusion to a moderate degree. Pathologically, however, we rarely see a pleurisy with effusion without some slight degree of inflammation existing in the bronchial tree or in the lung itself. This man coughs and expectorates, so he has some slight bronchial trouble in addition, which is of no consequence, however.

Now as to treatment. The man was given Epsom salts on his admission, to move his bowels. Time is wanted in the treatment of these cases. Rest in bed, light diet—not absolutely liquid, however—and some tonic treatment, such as Basham's mixture, is all that is needed. There is no fever which requires treatment. If we give him time and rest in bed, he will probably soon recover. The prognosis, then, is good. Almost all cases of pleurisy with effusion recover promptly.

—Sulphur, always heretofore considered an elemental substance, is now declared to be a compound of carbon with other elements. Dr. Theodore Gross, of Berlin, read a paper before the Vienna Academy of Sciences, detailing experiments which seemed to prove that sulphur, especially precipitated sulphur and that in what is known as the allotropic form, is readily decomposed and leaves a residue of carbon.

COMMUNICATIONS.

GONORRHŒAL SALPINGITIS IN ITS SURGICAL ASPECTS.[1]

BY CHARLES P. NOBLE, M. D.,
PHILADELPHIA.

The relation between gonorrhœa and pelvic inflammations in women is a subject which has justly excited much discussion within the past few years. Until Nœggerath proclaimed his views as to the importance of this disease as a cause of pelvic peritonitis, gonorrhœa in women was considered a trivial disorder. Since that time important changes in professional opinion have taken place. Indeed there has been a tendency to attribute all catarrhs of the genital tract, not plainly due to infection during the puerperium, to gonorrhœal infection. In this way I feel sure that injustice has been done to many virtuous women, who have been so unfortunate as to suffer from vaginitis, endometritis or salpingitis. It is not my purpose to enter into a discussion of the conflicting views concerning the importance of gonorrhœa as a cause of salpingitis, but it can be asserted safely that it is a frequent cause of this disease. Hence gonorrhœa in women must be considered as possessing infinite potentialities for harm. The course of gonorrhœa of the Fallopian tube may vary greatly in different cases. The more usual pathological conditions I shall illustrate by the specimens exhibited. But while the course of the disease presents great variations, there are certain peculiarities which it is worth while to recall. Gonorrhœal inflammation is almost invariably a disease of mucous or of serous surfaces. Exceptionally distinctive suppuration, more especially in the ovary, is produced by it. Owing to this peculiarity, fluid accumulations form in the tubes; the fimbriated ends of the tubes become occluded by adhesive peritonitis induced by the infecting agent, and, the formation of pus or of watery fluid by the mucous lining of the tubes continuing, a pyosalpinx or a hydrosalpinx results.

The fact that destructive suppuration seldom results from gonorrhœal inflammation accounts for the essentially chronic course of the disease. It lasts for months and years, sapping the patient's vitality, always producing pelvic discomfort and at times agonizing suffering, and it finally induces a condition of chronic invalidism or renders the sufferer a bedridden wreck. Irregular exacerbations of the inflammatory processes increase the patient's sufferings, or confine her to bed for days or weeks. These acute attacks of pelvic inflammation usually follow menstrual congestion or over exertion.

The extent of the peritonitis which accompanies salpingitis varies greatly. This is a very interesting question. It is considered, and I think rightly, that peritonitis is set up primarily by leakage of gonorrhœal poison through the fimbriated opening of the tube, and that the recurring attacks are due to leakage of the tubal contents through slight ruptures in the adventitious material formed about the end of the tubes. It is possible that the infection may spread through the wall of the tube itself. After slight attacks of peritonitis, nothing may be found, besides the diseased tubes, except delicate, net-like, pelvic adhesions. On the other hand, the most extensive structural changes may be found, usually after many recurring attacks of peritonitis. All the pelvic viscera may be matted together, with or without intra-peritoneal abscesses, or abscesses of the ovaries.

A most important characteristic of gonorrhœal peritonitis is its tendency to localize itself. Exceptionally acute gonorrhœal inflammation will spread through the uterus and tubes and cause acute general suppurative peritonitis and death. This may also result from the rupture of pus sacs in the tubes, the ovaries or the peritoneum. In this respect gonorrhœal peritonitis differs radically from that induced by perforation of the intestinal tract, or by puerperal infection, which tends to become general and rapidly fatal.

Gonorrhœal salpingitis has little if any tendency to spontaneous recovery. At best it results in the production of pelvic adhesions, binding the pelvic viscera together and producing pain, or interfering with the functions of the bladder or rectum. Usually the progress of the disease is from bad to worse, until the sufferer is reduced to chronic invalidism or dies from peritonitis or intercurrent diseases.

There can be no doubt that the condition of depressed vitality brought about by long-standing pelvic inflammation, and especially by the absorption of pus products, predisposes to the development of consumption,

[1] Read before the West Chester Medical Society.

and perhaps of other constitutional diseases. Cases of consumption have come under my observation in which pyosalpinx of long standing seemed to be the determining cause of the disease.

I shall not take up your time with a formal description of the familiar clinical history of this disease, but will report five cases somewhat in detail, in which the points of interest will be brought out.

Case 1.—Bilateral gonorrhœal salpingitis and ovaritis—So-called hysteria—Six attacks of pelvic peritonitis in five months— Removal of uterine appendages—Recovery.

Mrs. ——, æt. 20, multipara, always had good health, and was free from pelvic distress until March, 1887, when she developed an acute vaginitis with irritating leucorrhœa. This was treated with vaginal douches ordered by her physician without benefit. June 24, 1887, she was taken with pelvic peritonitis induced by salpingitis of the left tube. She had a severe attack, the temperature reaching 103° F., the pulse 110. Large amounts of morphia were necessary to relieve pain. After improvement had taken place she was sent to the seashore. While there she had two similar but less severe attacks, which, however, were accompanied with great pain. On one occasion it was necessary to etherize her, when morphia failed to relieve the pain. August 11, she came under my care suffering from mild peritonitis in the right side. Examination revealed intense vaginitis, a fixed uterus, and a tubo-ovarian mass in the right side. The temperature was 101° F., the pulse 90. At this time, I still clung to the old views of pelvic inflammations and expected to effect a cure with local applications. Rest in bed, sublimate douches, morphia and chloral iodine to the hypogastrium and liquid diet were prescribed. Under this treatment the woman improved very much. August 31 she was out of bed, felt well when quiet, and had a good appetite; but had pain on defecation and when jarred. Examination showed that the vaginitis was much better and that the uterus was more mobile. The tubo-ovarian mass was not recognized. Under depletion with glycerine tampons, and counter irritation with iodine, she felt quite well and vigorous again.

A fifth attack of peritonitis (salpingitis) supervened October 1. As before, the pain was intolerable. On endeavoring to relieve it I had an experience I shall never forget. Large doses of morphia were given hypodermically without bringing relief. On the night of October 13, after having given during the evening one grain and a fourth of morphia hypodermically in divided doses, about midnight I administered ether, hoping thereby to bring relief. Only a few inspirations were taken when the patient became "blue" and the respiration ceased. I believe that voluntary respiration did not occur for fifteen minutes—not until the husband had run nine blocks for a Faradic battery and this was got to work. Respiration immediately succeeded. During this interval artificial respiration had been kept up by Sylvester's method, while the head was dependant. The combined influence of the morphia and the ether had paralyzed the respiratory centre. After this event gradual improvement took place, and under advice of consultants, the former local treatment and general Faradization were employed. Tubo-ovarian masses could be felt on each side. During this time I determined that I would operate if another exacerbation occurred, and this did happen on November 3. After consultation with Drs. Kelly and Longaker, laparotomy was decided upon, and was done December 3, Dr. Kelly assisting. The appendages were removed without special difficulty; adhesions were general but easily broken up. The ovaries were enlarged, the left twice as large as the right; the tubes were dilated (pyosalpinx) and the fimbriated extremities were occluded. The operation was aseptic. No drainage was used. Convalescence was afebrile and free from incident.

This was almost certainly a case of gonorrhœal inflammation of the tubes and ovaries. The husband had gonorrhœa at the time, and he told me he had contracted it from his wife! There are two elements of doubt in the case. The woman was not virtuous, and hence her statements were not reliable; and besides the cervix felt as though it had sustained a laceration from a miscarriage or a dilating instrument, used, perhaps, to induce one. Unquestionably this woman endured a vast amount of uncalled-for suffering, besides running the risk of becoming a morphia eater. It would be interesting to know how many drachms of morphia she took; and, not less truly, how many useless visits I paid her, many of them in the night and at much cost to my personal well-being. This case was an education in itself. I

watched it until patient, family and physician were thoroughly disheartened. Operation was postponed on the advice of Dr. Wilson. Happily at this time women having gonorrhœa salpingitis of a serious character are subjected to operation without such useless delay. This woman made a perfect recovery.

Case 2.—Chronic salpingitis—Pelvic hematoma—Exploratory laparorotomy—Recovery.

Mrs. ——, æt. 33, twice married, never pregnant, always had suffered from dysmenorrhœa. Her first husband had gonorrhœa; but no distinct history of acute vaginitis in the patient could be obtained. November 6, 1886, after a long walk while menstruating she went to bed with severe pelvic pain and fever, in which her temperature reached 104° F., her pulse 120. A large mass formed in the pelvis occupying the left broad ligament and extending between the uterus and the bladder into the right broad ligament. A diagnosis of hematoma was made. She was kept in bed for six weeks and treated with quinine, anodynes and poultices, and later with counter irritation by means of iodine and blisters; internally she was given iodide of potassium and tonics. The hematoma was entirely absorbed. The uterus was left retro-verted and adherent, and a small tubo-ovarian mass could be felt on the left side. The woman resumed her laborious work, and became quite comfortable under local treatment, with iodine and glycerine tampons. In the fall of 1887 symptoms of subacute salpingitis supervened, and subsided under the same treatment, which was continued through September and October. June 26, 1888, the patient had an attack in every way similar to the one first narrated. The physical conditions were just the same, as was the treatment. July 15 the acute symptoms had subsided and she entered the Philadelphia Lying-in Charity. Here she was seen by Drs. E. Wilson, Parish and C. M. Wilson. The diagnosis was left in doubt: hematoma, pyosalpinx, cellulitis and ovarian tumor were suggested. Exploratory laparotomy was advised and done, Dr. Henry Leaman assisting. The patient was quite stout and her abdominal walls were at least 3 inches in thickness. It was necessary therefore to make the incision long enough to admit the half hand to explore the pelvis. The pelvis was found absolutely choked on the left side, with just enough space on the right side to pass two fingers behind the mass into the pelvis. The mass was clearly within the broad ligament, filling the left side, extending between the uterus and bladder to the right side of the pelvis; also along the left iliac fossa. It was everywhere hard. I considered that the diagnosis of hematoma was sustained, that this was not undergoing suppuration, and that, if it did, it could more safely be evacuated per vaginam, as no bowel was in the way. Drs. Wilson and Leaman agreed, and the incision was closed. No drainage was used. The deeper parts of the incision healed by first intention, but superficial suppuration occurred. When, a month afterwards, Mrs. —— was discharged, the hematoma was entirely absorbed and a small tubo-ovarian mass could be felt in the left side. She went home and to the wash-tub, and afterwards developed a ventral hernia. Since that time she has had one attack of acute salpingitis of the left tube. At the present time she is fairly comfortable, and therefore refuses operation for the removal of the appendages and the cure of the hernia.

The conditions present in this case are rare. Ante-uterine hematoma is rare, and ante-uterine cellulitis is equally rare. Unquestionably a salpingitis in the left side has been the cause of the hematoma. The inflammation is probably gonorrhœal.

Case 3.—Large pyosalpinx—Pint of pus—History extending over seventeen years—Operation in extremis—Recovery.

Mrs. ——, aet. 36, mother of two children, aged respectively, fifteen and seven years, one miscarriage between labors, always well until marriage, at twenty years. At the first period after marriage she had a severe attack of pain in the left ovary, which the physician who was called in diagnosticated as due to ovaritis. There was no accompanying vaginitis. The husband had had a gonorrhœa with gleet for eighteen months, but had been pronounced well for some months before marriage. Sixteen months after marriage she gave birth spontaneously to a girl baby, had "chills and fever" and was four weeks in getting out of bed. Her physician said that "she came near having child-bed fever." She has never felt well since. Bearing down, leucorrhœa, dyspareunia and pain on locomotion supervened. Three months after labor an attack of salpingitis on the left side put her in bed for six weeks. Six months after labor she miscarried at the

second month, and within seven years she had six severe attacks of pelvic inflammation, each attack confining her to bed from four to six weeks. When the first baby was five years old an abscess discharged per vaginam. During the past seven years, since the birth of the second daughter, there have been three attacks of pelvic inflammation. Menorrhagia and metrorrhogia, leucorrhœa and pain in the left ovarian region have been almost constant. She has been in bed or "lying around" two-thirds of the time for sixteen years.

I saw her first in May, 1889. She was greatly prostrated and emaciated and was unable to walk. A large pyosalpinx on the left side was diagnosticated and its removal after preparatory treatment was advised. I was her eleventh physician, and she had been treated for everything except the real ailment. The appendages were removed at the Kensington Hospital for Women June 19, 1889, Dr. Hunter Robb assisting. The right tube and ovary were enlarged. The left tube was enormous and was ruptured during removal, discharging much pus into the peritoneal cavity—perhaps a pint. The peritoneal cavity was thoroughly irrigated and drained. Convalescence was slow. This patient is now, relatively speaking, well, and has gained twenty-five pounds. Champagne arrested obstinate vomiting on the fourth day after operation, and, I think, saved her life. The vomiting was bilious, dark green, and very offensive, with distinct fecal odor. It was apparently induced by a slight circumscribed peritonitis in the left inguinal region. The etiology in this case is obscure—the attack of ovarian pain during the first period following marriage is suggestive of gonorrhœal salpingitis. The cause, however, may have been puerperal.

Case 4.—Gonorrhœal salpingitis of six weeks' duration—Three attacks of pelvic peritonitis—Removal of appendages—Extensive intestinal and omental adhesions—Recovery.

Mrs.——, æt. 31, has had one child, has never miscarried and has always been well until her labor. She had a chill on the seventh day of her lying-in, but the very competent attending physician did not attribute it to sepsis. She was up on the twelfth day, but regained strength slowly. She contracted gonorrhœa in August, and had a severe attack of salpingitis of the left tube during her menstrual period in October. At this time she was under my care. A mild salpingitis of the right tube followed in two weeks, and at the period in November, she had a very severe attack.

Her sufferings were such that I was driven to operate during the continuance of the acute symptoms. This, I think, should not be the general practice, as the patient's vitality is already reduced by fever and acute pain and fatal shock is more likely to follow a serious operation. Laparotomy was done at the Kensington Hospital November 26, Dr. Boyd assisting. The omentum was densely adherent in the pelvis. It was partly torn loose and partly tied off. The appendages were densely adherent to all adjacent bowels from the cæcum to the rectum. The separation of these adhesions required much time and several ligatures. The pelvis being open, the right tube and ovary was freed from the cæcum and tied off, the left tube and ovary were then separated from the sigmoid and rectum and also removed. The peritoneal cavity was thoroughly irrigated and drained. The tubes were enlarged and contained creamy pus. Both ovaries were diffluent, from effused blood, and a hematoma was present in the mesosalpinx of the right tube. The patient went to bed much shocked, and was extremely sick for four days. The use of nutritive enemata, and the free exhibition of champagne, strychnia and digitalis hypodermically, together with such fluid nourishment as the stomach would bear brought her around. Convalescence was slow but quite satisfactory. At the present time she feels quite well and is rapidly gaining flesh.

Case 5.—Gonorrhœal salpingitis—Pelvic abscess—Operation—Recovery.

Mrs.——, æt. 28, married nine years, has had two miscarriages within the first year of married life. Six years ago she began to have labial abscesses, which have recurred four times. She has always had whites, but no history of acute vaginitis can be obtained. Shortly after marriage she began to have groin pains, which have troubled her all the succeeding years; but she has never been confined to bed until September, 1889. A feeling of soreness on exertion or jarring has been a constant source of annoyance. Dysporeunia also has been constant. Menstruation has been regular but always accompanied by severe cramps. Dysmenorrhœa was as marked before marriage as after. During September, 1889, after mov-

ing, a feeling of soreness in the pelvis, cramp-like pains, irritable bladder and painful defecation became very annoying, and persisted throughout the attack. Until Christmas she was sometimes better, sometimes worse; but after that time she was confined to bed. She now had chills, fever, tumefaction in the region of the left groin—in fact, all the symptoms of acute salpingitis.

I saw her first January 7, when she had a temperature of 102° F., chills, rapid pulse, tympany—in fact, all the symptoms of acute pelvic peritonitis. On examination a large tubo-ovarian mass on the left side, with evidence of general pelvic adhesions was found. A diagnosis of pyosalpinx was given, and operation after the subsidence of acute symptoms was advised. The patient was kept strictly in bed, and given quinine, a febrifuge, and morphia, sufficient to quiet pain. The bowels were kept loose with calomel or other laxatives. Poultices were applied to the hypogastrium. Under this treatment the acute symptoms rapidly subsided. Laparotomy was done January 30, at the Kensington Hospital for Women, Dr. Boyd assisting. As was expected, adhesions were general and dense. The omentum was separated from adhesions about the brim. The right ovary and tube was freed from deep adhesions and drawn up; when the cæcum was found adherent: the appendix being free. A large tubo-ovarian abscess, densely adherent to the pelvic wall, rectum and sigmoid, was found on the left side. The abscess was partly intra-peritoneal, as the bowel made part of its sac. The tube was, with difficulty, removed. The ovary, as such, could not be recognized. The peritoneal cavity was thoroughly irrigated with boiled water, and drained. Recovery was prompt, but for several days after the operation the woman was profoundly depressed. She left the Hospital after three weeks. The right tube is decidedly thickened, and the fimbriated extremity occluded. The left tube is much enlarged and elongated, and the extremity lost on the wall of the abscess.

These cases represent almost every phase of gonorrhœal salpingitis. In cases long neglected, more extensive peritonitis is present, and at times collections of pus form between agglutinated serous surfaces above the pelvis.

The cases reported were all treated by abdominal section, and in all but one the source of the disease was removed. In this case the complicating hematoma prevented extirpation.

The diagnosis of gonorrhœal salpingitis is based upon the symptoms and signs common to all inflammations of the Fallopian tubes. It is to be distinguished from the other varities of salpingitis either by the presence of a history of gonorrhœal infection, or by the absence of a history of other sources of infection.

The question as to the proper treatment of gonorrhœal salpingitis is one which demands our earnest thought. The natural history of the disease is now well known. Its tendency to progress from bad to worse, almost insures, in any individual case, a life of suffering, and invalidism, and final death from peritonitis. In view of these well-recognized facts, will it not be best to remove the uterine appendages by abdominal section early in the course of the disease, when the operation is a simple one, and comparatively free from danger? Operation done at this time will leave the pelvic and abdominal viscera in a comparatively healthy condition, and offer every hope of restoring health and usefulness. My own opinion is that such a plan of treatment is eminently and truly conservative, and I shall not hesitate to apply it whenever the conditions are such as to leave no doubt as to the diagnosis.

At the present time early operations are seldom done. The patient submits to operation only after repeated attacks of peritonitis, and perhaps after the formation not only of a pyosalpinx, but of intra-peritoneal accumulations of pus, and the matting together of some or all of the pelvic viscera. Operation done under such circumstances must necessarily often yield far from ideal results. The focus of the disease may be removed, but the secondary effects, local and general, not infrequently cannot be. In the more serious cases operation must be done with the purpose of saving life, and not with the purpose of doing a formal operation. In the worst cases it is enough if pus pockets be emptied and drained, for a formal operation, with separation of all adherent viscera and removal of the appendages, will require so much time and entail so much shock as to insure death.

Operation per vaginam is seldom indicated, and should be regarded as palliative rather than radical. In cases seen late, in which the vitality is so reduced as to leave little hope of recovery often abdominal section, in which the pus sac is adherent in Doug-

las's pouch, and in which early death is clearly to be apprehended unless the pus can be removed—in such cases I believe it to be good practice to operate per vaginam, to tide over the crisis. The pus should be evacuated by aspiration, the track of the cannula dilated, and a drainage-tube introduced.

The choice of the time of operation is very important. The history of these cases is that of many recurring acute attacks. Hence in any attack the probabilities are greatly in favor of improvement under the usual medical treatment. Therefore it should be the rule to wait for the subsidence of acute symptoms and some recuperation of strength before operating. In this way the patient will be better able to withstand shock. This rule, however, is not invariable, and operation must sometimes be done during the course of an acute attack to save life. To properly determine the right course all the knowledge, care and judgment of the surgeon is required.

SUPRAPUBIC LITHOTOMY. — PERINEAL LITHOTOMY.

BY JAMES B. THOMPSON, M. D.,
RATBUREE, SIAM.

On account of the interest taken in the suprapubic lithotomy, I will report a case in which I have performed the operation.

The patient was a man sixty years old, and he was operated on in November, 1887. I had for assistants the Rev. Mr. Dunlap and two of my native students. The man was of a spare build, somewhat emaciated from his sufferings, and, fearing that the stone was a large one, I decided to cut through the abdominal wall. A sound passed through the urethra guided me to the bladder wall, and the stone was easily removed, being only 1¼ inches in diameter. I closed the wound in the bladder wall with carbolized catgut, and inserted a small drainage-tube through the external wound into the sub-peritoneal tissues too, but not through the bladder wall. Oiled lint was applied as a dressing, and a soft catheter was left in the urethra for forty-eight hours. The patient was kept on his back (imperatively), with his head and shoulders slightly elevated. On the second morning the catheter was withdrawn, and the urine was voided normally during the day. The catheter was inserted again during the night. The drainage-tube was withdrawn by degrees, and on the fifth day was entirely removed. After the seventh day the catheter was dispensed with entirely and on the tenth the external wound was completely united. From that time on the man was allowed to sit up, and in four weeks he was perfectly well. Bichloride of mercury was the antiseptic used during the operation.

There are three features of this case to which I would like to call attention:

First—The bladder was not injected, nor was the rectum dilated. Prof. Agnew's suggestions in his *Surgery* seemed to me so thoroughly sensible that I determined to follow them. From my experience I feel satisfied that injecting the bladder for such an operation is a mistake.

The bladder wall can be found with greater ease when raised on the point of a sound than when injected. It is true the incising of the flaccid viscus is more difficult, but the round surface of the fundus when injected cannot possibly reach as high up towards the incisions as the sound would lift it.

Second—The wound in the bladder wall was immediately and completely closed. Some seem in doubt about this point and seem to prefer leaving it open *for fear some urine may get through it.* Isn't it more likely to extravasate if left open?

Third—The patient was kept on his back, with head and shoulders slightly elevated for eight or ten days. I cannot see the reasons which induce so many to place the patient on his side after such an operation. It seems to me that this invites urinary infiltration, while ostensibly providing for drainage.

In the after treatment of these cases perfect and speedy closure of the opening in the bladder is the great desideratum, and it does not seem rational to leave the wound ununited, or even with a drainage-tube between the lips, since both of these practices must certainly interfere with speedy closure. Then to place the patient on his side, the position which gives the greatest danger of even a small quantity of urine overflowing through the wound, completes the conditions required to bring about a high rate of mortality.

I would sum up thus: Use no injection, but be guided by the point of a sound through the urethra. Close completely the wound in bladder, but leave a drainage-tube in the external wound. If the bladder will

bear it, insert catheter per urethra for forty-eight hours. At least watch that the urine is withdrawn by catheter every two to four hours. Place the patient on the back with the hips lower than the shoulders, thus facilitating the flow of urine and rendering it possible for any accumulation of pus to escape through drainage-tube. I believe if these points are observed the suprapubic operation will be found more satisfactory.

I have had two other cases of stone which I cut through the perineum. The last one of the two I would have cut through the abdomen, but he took ether so badly—vomiting, etc.—that I did not dare to attempt it. The stone was 1¼ × 2 × 2½ inches in size, and I greatly feared the boy would die from the difficulty I had in getting it through the bony structures of the pelvic outlet, but he recovered well and shows no evidence of any injury having been wrought.

FURTHER CONSIDERATION OF THE LATE INVASION OF THE GRIP.[1]

BY A. K. BALDWIN, M. D.,

NEWARK, N. J.

The peculiar heading of this paper is rendered necessary by the fact that at our last meeting, while the history, symptoms and treatment of the disease in question were thoroughly ventilated, it was determined to consider this subject again at our next gathering, which occurs to-night. Aware of the fact, as I am, that it may be impossible to impart any new information, it will probably not be amiss to compare notes with my fellow-practitioners in experiences in the concomitants, sequelæ and other after-results of this malady, which could not very well present themselves at our former gathering.

In order to speak of these more intelligently, it might be as well to detail briefly the grip symptoms.

These may be divided into three varieties:

1. *Nervous*, where severe headache, pain in the muscles of the eyes, frontal and supra-orbitory pain, usually of the left side, general neuralgic and rheumatic pain, more or less sweating, exhaustion and wakefulness prevail.

2. *Gastric*, where epistaxis, tonsillitis, nausea, vomiting, constipation or diarrhœa and dysentery occur.

3. *Respiratory*, where the whole respiratory system is invaded. The patient has pain in the frontal sinuses, the eyes congested and watery, profuse serous nasal discharge, and feeling of stenosis over the bridge of the nose, hoarseness, general bronchitis and severe angina.

All of these varieties may, of course, exist in one person and to such an extent that it may be impossible to distinguish the variety; or one set of symptoms may develop to be followed in turn by others. The duration of the grip has been found so variable that no distinct period of termination can be relied upon. Relapses and recurrences have been likely to occur, and many attacks of ordinary influenza that we now see are undoubtedly due to the semi-chronic inflammatory condition left behind. Cases of persistent neuralgia—cervical, facial and supra-orbital especially—are seen in our offices every day, and succumb only slowly to treatment.

While in the experience of probably all of us the grip *per se* has in no instance resulted fatally, we have seen dangerous concomitant or after-symptoms arise, which in a few cases have resulted fatally. Let us, however, not confound cases of consumption, Bright's disease, or any other grave disorder, with these sequelæ; since it is well known that the epidemic has intruded itself into any system irrespective of a pre-existing malady. Add prostration to that which already exists and an unfavorable prognosis is of course to be expected.

The long-continued prostration itself is grave and absolutely dangerous, and is a forerunner of extension of inflammation. That in the frontal sinus has been followed by meningitis, and death has occurred in a very short time.

General bronchitis has had added to it the capillary form. This occurs oftenest in females. The exhausted system is in about the same condition as that of young children who have been similarly affected. Should this form not remain dry the patient is unable to expectorate the large amount of secretion in the small tubes nature does not absorb, quickly, and death has occurred in some few cases from asphyxia.

But most frequent and fatal of all, where fatal results have occurred, has been pneumonia. It has been lobar or lobular in form, and generally catarrhal in character.

[1] Read before the Practitioners' Club of Newark, N. J.

The lower portions of both lungs have been affected. It has occurred more frequently in males. Commencing with a chill, it causes the sub-normal pulse and temperature to become accelerated and increased for the time being, until a profound condition of prostration exists. Even then, of course, most of our cases have slowly recovered; for persistency of all symptoms of the original disease and of its sequelæ seem to form a prominent feature of the grip. But some of our patients have slipped through our fingers and that, too, rapidly, in from two to five days, death being due to heart failure. While I have been fortunate with all of my cases—probably from giving very little treatment—having had my own business and partially that of two other physicians who were laid up with the fashionable disorder, I had serious apprehensions over several pneumonic cases which seemed to never get well; in fact, recovery, especially in one case, is not yet complete. May not this grave sequelæ, in feeble cases, be the foundation of phthisical lung disintegration?

In the gastric variety of the grip epistaxis, after occurring in the disease, has recurred so many times as to be an unpleasant symptom. I saw one such case; but this patient had had many attacks for months before. Dysentery, after most other symptoms had subsided, was present in two cases; but it was not persistent. Two cases of orchitis and epididymitis have interested me very much. In one case gleet was present and enlargement of the testicle had occurred six weeks before the attack of grip, terminating two weeks after commencement of the latter. Ten days after the grip symptoms subsided, severe inflammation of the testicles and epididymis again existed. In the other case there was no venereal history, and I am satisfied of the patient's truthfulness, as he has no object in deceiving me. In his case, however, rapid recovery followed. In the epidemic of 1732 swelling of the parotid glands and testicles was noticed occasionally.

Other symptoms and diseases have probably been met with by some of you as sequelæ of the grip; and, in fact, the question naturally arises: Are we yet entirely done with them? Compared with its ravages at its starting place south of St. Petersburg, the grip has been a mild disease in this country; but, from its extensive range, its sudden onset and its multitudinous victims, it may give us plenty of work with its sequelæ for some time to come.

PERISCOPE.

Cheyne-Stokes Respiration.

At a meeting of the Clinical Society of London, held Feb. 14, 1890, and reported in the *Lancet*, March 8, 1890, an interesting discussion took place on the subject of Cheyne-Stokes respiration. The discussion was opened by Dr. Samuel West reading the notes of a case of Cheyne-Stokes respiration occurring in the course of a case of granular kidney of three months' duration. The patient, a man fifty-three years old, with a history of gout occasionally, had been suffering from shortness of breath for eighteen months, especially after exertion. Six months before consulting Dr. West he was suddenly seized with very severe dyspnœa at night, so that he thought he was going to die. After half an hour he rallied, but he had two similar attacks in the course of a month, and then remained well until Feb. 14, 1890, when the worst attack of all occurred, since which time his breathing remained short. When first seen by Dr. West the patient had a pale, sallow, earthy complexion, with tortuous and thickened arteries, and a pulse of high tension. His pulse 104 and his respirations 48. The heart was not manifestly hypertrophied, and there was no murmur. The urine was of low specific gravity, 1.010, and contained about one-sixteenth of albumin. The retina was natural. The case was diagnosed as one of weak heart resulting from granular kidney. A few days later Cheyne-Stokes breathing developed. The respirations were 48 in the minute. The cycles occurred about once a minute and the pause lasted thirty seconds. There was no change in pulse, or pupil, or in appearance during the pauses. For fourteen days the Cheyne-Stokes breathing was continued night and day. Then the pauses disappeared and the general character of respiration was to crescendo and diminuendo. A week later the place of the pause was taken by intermission, about two or four respirations being missed. The heart was at the time observed to be gradually dilating and the apex was about the nipple; no systolic murmur was audible at the apex. A few days later the Cheyne-Stokes breathing, which had been absent for fourteen days, returned. After lasting twenty days, the pauses again disappeared. This condition lasted for four days, and then was replaced by Cheyne-Stokes breathing, which remained

present thenceforth until the patient's death. The cycles occurred over a minute, the pauses lasted from twenty to twenty-five seconds, and the respirations numbered about forty. For two days a ravenous, insatiable appetite developed, and then almost completely failed. The patient died after having been under observation three months. No *post-mortem* examination could be obtained. The temperature was normal throughout. The points of interest were: The long duration of the Cheyne-Stokes breathing; the replacement of the pauses by simple intermission; and the disappearance of the pauses while the rise and fall of the respirations continued. Dr. Charlton Bastian said that old writers had remarked on the association of Cheyne-Stokes respiration with fatty degeneration of the heart, but he had seen no such cases; he had observed it in connection with cerebral lesion. It might be, he supposed, produced by the blood poisoning associated with renal disease. Dr. Stephen Mackenzie had attended an elderly relative aged eighty, with dilated heart, granular kidneys and a little albuminuria, who showed signs of intermittent Cheyne-Stokes breathing for two months. He observed that at the commencement of the series of ascending respiratory acts a distinct movement of the arms towards the head took place. He had seen many cases in connection with cerebral disease, and he possessed a good chest tracing from a case of hemiplegia with diminished movement of one side of the chest. He had seen two patients recently in whom, during the apnœic period, a distinct convulsive seizure took place; one had between 150 and 200 such fits in twenty-four hours. He asked if any one had seen a case of Cheyne-Stokes breathing apart from injury of the head which had recovered. Dr. West said that the cases of Cheyne-Stokes respiration in association with fatty heart were easier to study than those associated with brain lesion. He thought it dangerous to lay much stress on convulsive movements in cases of unconsciousness. Oscillatory changes in the pupils were observed in other conditions, such as tubercular meningitis. One or two cases of recovery were on record, and in one a probably false diagnosis of tubercular meningitis was made.

In answer to Dr. Mackenzie's question, as to whether any observer had known a case in which this phenomenon was developed, to recover, Mr. R. H. Fox reports, in the same number of the *Lancet*, the following case:

The patient was a woman sixty-six years old, slight, delicate, and asthmatic, who was suffering from influenza and bronchopneumonia at the base of the left lung. The patient was thought to be dying. Delirium had been succeeded by drowsiness, alternating with periods of some mental activity. The right side of the heart was evidently much loaded, ahd the heart's action exceedingly irregular and jerky, but without bruit, temperature hypo-normal. The patient's hands were chilly and perspiring, the lips purplish red, the power of swallowing was almost lost, her cough was feeble, and expectoration, which had been lately abundant, had ceased—the general aspect betokened approaching dissolution. The respiration, which was attended with a rattling noise from mucus in the throat, and which had been irregular and labored, assumed and retained during one night the Cheyne-Stokes type. The respirations were shallow, brief, about 40 to the minute, and of diminishing force, until a pause came, lasting several seconds (perhaps ten); after this the breathing recommenced slowly. During the pause the pulse was unaltered, its rhythm being throughout very irregular, and the rate about 120 to the minute. The pauses varied in frequency, sometimes only six respirations came between them, sometimes much more. There was no apparent alteration of pupil. From this condition the patient recovered and has become fully convalescent, her recovery being attributable less to the digitalin, fresh infusion of digitalis, etc., administered, than to the gradual drying of the lungs by evaporation as she lay many hours almost without food or liquids, so that the heart was eased of its burden. No albumin or sugar was found in the urine.

Radical Treatment of Hernia.

In an article on the radical treatment of hernia, in the *University Medical Magazine*, April, 1890, Dr. D. Hayes Agnew says that the methods at present practiced are quite simple as compared with former ones, and while not free from danger, yet when done under strict antiseptic precautions furnish a very low mortality. Success, that is, a radical or permanent cure, is also claimed for a considerable proportion of the cases now subjected to the knife.

Dr. Agnew does not think that operators should commit themselves prematurely to

present plans, until both in time and in number, the necessary data for the expression of an authoritative opinion have accumulated. When we recall the enthusiasm with which the old Wutzer operation was greeted, and the scores of cures reported to have been made, and now consider that this procedure lives only among the surgical wrecks of history, the wisdom of this hint will be apparent—one, two or three years' observation of patients after operation will alone establish the verity of a cure. Indeed, any one who has followed the literature of the different surgical processes for the radical cure of hernia, and for most of which great success has been claimed, and then discovers that all have fallen into disuse, becomes naturally a little sceptical of the trustworthiness of surgical statements.

Dr. Agnew believes, however, that we are nearer the solution of the problem, that is, the permanent cure of rupture, than ever before, but he is not over sanguine as to its complete success. There are certain anatomical difficulties in the way which, while it would be rash to say that they are insurmountable, are certainly unfavorable to the accomplishment of so desirable an object. Not one of the structures used for fortifying the points of hernial egress can be said to offer as great opposition to intestinal protrusion as those normally existing, and the suturing together of fascia is at best uncertain in its results.

In formulating, as briefly as possible, his views on the necessities for operative measures looking to the permanent relief of hernia, Dr. Agnew states:

First. That the radical plan should follow all cases of strangulated rupture in which the knife has been employed for the relief of the patient.

Second. There are cases of hernia in the adult which cannot be controlled by mechanical measures, however skilfully applied. Fortunately such cases are not of frequent occurrence, but when met with, and the patient is not too far advanced in life, an operation should not be declined, as the risks from strangulation are greater than those from the knife. He certainly would not propose an operation in any case where the rupture can be perfectly retained by a truss, giving, as it does when properly fitted, so little inconvenience to the wearer.

Third. Children under ten years of age who have rupture are not proper subjects for operation. Such patients almost invariably recover after wearing a truss for two or three years. Not only so, but even in the event of strangulation occurring during these early years, and requiring an operation for the same, the subsequent use of a truss will prove to be no less efficient than had no such accident happened. This is just what might be expected, as the development which goes on with growing years naturally tends to consolidate and strengthen the hernial passages. When failure does occur, it is to be charged either to an improper, or badly-fitting truss, or to inexcusable carelessness on the part of the child or of those entrusted with the oversight of its life. The pad of the instrument should be a hard one, constructed out of deal wood or hard rubber. The entire apparatus must be adjusted with scrupulous care, fitting so neatly and evenly to the body of the patient as to cause no discomfort whatever. Nor should the truss be removed during the night, except for a short time, while the skin is becoming accustomed to the pressure, when it may be laid aside after the patient retires to bed. To render the surface of the body tolerant to the contact of the pad the parts should daily, for some time, be well rubbed with alcohol containing some alum, or with soap liniment. The necessity for this preliminary preparation rarely extends over six or eight days, after which the instrument must be worn night and day.

When from any cause the temporary removal of a truss is required, it should be done while the patient is in the recumbent position, and be replaced before rising to the feet. In addition to the instrument habitually worn, a second one ought always to be on hand for temporary use while bathing.

Surgery in Infancy and Childhood.

At the meeting of the Medical Society of London, held February 3, 1890, and reported in the *British Med. Journal,* Feb. 8, 1890, Mr. Edmund Owen delivered the third and last Lettsomian lecture, commencing with the operative treatment of the congenital form of wry-neck. He alluded to the risk of wounding some large vein, which was inseparable from subcutaneous tenotomy of the sterno-mastoid muscle, of which he mentioned an instance within his own experience. Since then he had relinquished this method of operating in the dark, and

had adopted the alternative plan of dividing the muscle through an open wound. The results of this plan had been fully as successful, and the uncertainty of the other method was avoided. He said that subcutaneous tenotomy was an anachronism in these days of antiseptic surgery, and he mentioned an instance in which it would have been impossible to have operated by the subcutaneous method without transfixing the internal jugular vein, though by the open method this was easily avoided. The lecturer then passed on to discuss the question of the treatment of vesical calculus in children. He observed that it might have been thought that finality had been reached when lateral lithotomy was brought to its present pitch of perfection, but he pointed out that under certain circumstances the operation presented difficulties and dangers it was impossible to provide against. He discussed Cheselden's statistics in the matter of lateral lithotomy, according to which this distinguished operator lost no more than three in 105 operations performed on boys under 10 years of age, but he added that his admiration for the operator was not equalled by his confidence in him as a statistician. He then took up the question raised by Sir Henry Thompson, as to what is a stone in the bladder. He first narrated two cases of what were often called "calculoid" disease, cases in which the stones were of small size and very apt to escape recognition by the sound, but he expressed the opinion that every concretion of a calculous character ought to be called a stone. He considered that the suprapubic operation was not the proper operation for the general run of calculous children, though it was at present the fashionable operation. He observed that it was unfair to submit the patient to the suprapubic operation, simply because the surgeon did not happen to possess Bigelow's instrument, litholapaxy being in many instances preferable. When the lithotrite could not be introduced, even after the meatus had been incised, and when the stone was not very large, as well as in those cases in which the stone, though not too large, was too hard to be dealt with by means of the lithotrite, lateral lithotomy was, he said, the appropriate method of treatment; with larger stones the high operation, as modified by Garson and Peterson, should be undertaken. Under these rules most children under two years of age would be treated after Bigelow's method, infants and a few grown children by lateral lithotomy, and in a few rare cases the suprapubic operation would be found necessary. In reference to the treatment of enuresis, he said he had found the internal administration of atropine to give good results. Passing on to the consideration of rupture in children, he urged that it should be regarded as a sign or symptom, rather than as a pathological entity, it being generally only a sign of arrested development in connection with the obliteration of the funicular process of the peritoneum. He dwelled upon the general precautions to be taken to prevent the increase of the rupture from violent expiratory efforts, etc., and advocated the employment of a skein of wool, so arranged as to afford support to the weakened side, in preference to any form of truss which, he said, was illsuited for children. Should the skein of wool prove insufficient, then a properly fitted truss would be necessary, but special care was incumbent in order to avoid undue chafing. He pointed out that most children lost the defect during the first year, though in others the cure might be delayed until puberty. He alluded to the causes of occasional erroneous diagnosis, and then passed on to consider the cases in which no truss could be relied upon to effect a cure. In these cases the duty of the surgeon was to bring about a cure, even if an operation had to be undertaken for the purpose. He held that the risks to which such a rupture would expose the patient in after life fully justified surgical intervention, though some judgment was desirable in the selection of cases for operation. He then described the steps of the operation, insisting upon the advisability of making assurance doubly sure by lacing up the lower end of the inguinal canal, especially the external abdominal ring with one or two strong sutures. He classed the subcutaneous methods of Wood, Wutzer and Spanton as empirical compared with the open plan of dealing with the defect, and he characterized the treatment by injection as incomplete and unsatisfactory. Alluding to the imprisonment of the testis within the abdomen, which was usually the result of any adhesion between that organ and the gut, he comforted himself with the reflection that such testicles were ordinarily undeveloped and of little utility. He concluded by saying that there were no cases of congenital reducible hernia in which he operated more readily than when there was an imperfectly developed testicle, for these

cases were well suited for treatment, and almost invariably completely successful.

Borax in Epilepsy.

At a meeting of the Cardiff Medical Society, reported in the *British Med. Journal,* April 19, 1890, Dr. Stewart, assistant medical officer at the Glamorgan County Asylum, related cases illustrating the value of borax in epilepsy. 1. A girl admitted, aged 13, had had epileptic seizures dating from birth, occurring in numbers varying from two to twelve per day and chiefly by night. She had been under treatment repeatedly, but without benefit. Without treatment the fits during the first week were twenty-six in number; under borax they were reduced to twenty-four in the second and eight in the third week. After an interval free from fits of sixteen days, four occurred on two successive nights; then after another interval of nine days a single fit took place, and since that there has been no recurrence of fits, that is, a clear interval of over a month. 2. This patient began to suffer from nocturnal epilepsy at eighteen and came under treatment five years afterwards. The case was complicated by serious cardiac disease and stenosis of the mitral orifice. Without treatment the average monthly number of fits were one hundred and one, and under borax this was reduced to twenty in the first month, seven in the second, one in the third, five in the fourth, none in the fifth, and one in the sixth. 3. This patient had whooping-cough at seven, followed by left hemiplegia, imbecility and epilepsy. The average number of fits a week, when no special treatment was employed, was three and one-half, and bromide failed to effect any reduction; after two and a half years' treatment the weekly average had risen to sixteen. Under borax the weekly average during the first month was reduced to fifteen and one-half, and during the second month to eleven and one-half. The diminution took place chiefly in the nocturnal seizures. In 4, 5 and 7, in which the fits occurred both by day and night, bromide exercised a decided influence upon the diurnal seizures, leaving the nocturnal practically unaltered, and in these benefit was experienced from the combined use of bromide and borax, three doses of the former during the day and one single dose of the latter at bedtime. 6. This patient, epileptic and imbecile from birth, came under treatment at thirty-five. The fits were of the nocturnal type, were uninfluenced by bromide, and were slightly diminished by borax.

Dr. Stewart concluded that borax exercised a peculiar influence over nocturnal seizures, and that it was in cases where the fits were entirely of that kind that the greatest good might be expected; that bromide, on the other hand, exerted a more powerful influence over diurnal seizures, and that in cases characterized by both day and night fits a combination of these two remedies would be productive of most benefit.

Turning in the Genu-Pectoral Position.

Writing to the *British Med. Journal,* April 19, 1890, Dr. Edwin T. Ensor says: I was called some time ago, by an experienced midwife, to see a primipara in labor at term; she saying a hand was presenting. I found not only a hand but also a foot and the head, the last being impacted in the pelvis, having forced down before it the posterior segment of the partially dilated os and cervix uteri, which it was injuriously compressing between itself and the promontory of the sacrum. The membranes had been ruptured a long while before I saw her, and the uterine contractions were nearly incessant. Patient declined chloroform and, being on her left side, after attaching a tape to the presenting foot, I did what I could with the left hand in the vagina towards pushing the head above projection of sacrum, but without success. It then occurred to me that if I put her in the knee-chest position, so as to allow the womb and its contents by virtue of their weight to fall forward and downward, turning might be made easier. This I did, with the satisfaction of finding that I was enabled to complete the operation with the greatest ease imaginable; very slight pressure of the head with simultaneous traction on the leg being alone required. The child, which was of average size, was as might have been expected, stillborn.

Dr. Ensor adds that he is not aware if this method has been suggested or practiced in similar cases before, and that he reports his case in the hope that the plan he adopted (which the readers of the REPORTER know is not novel) may serve others as well as it has served him.

THE
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REPORTER.

ISSUED EVERY SATURDAY.

CHARLES W. DULLES, M.D.,
EDITOR AND PUBLISHER.

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NEVER ROLL A MANUSCRIPT! Try to get an envelope or wrapper which will fit it.
When it is desired to call our attention to something in a newspaper, mark the passage boldly with a colored pencil, and write on the wrapper "Marked copy." Unless this is done, newspapers are not looked at.
The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

CODEIN AS A SUBSTITUTE FOR MORPHIA.

The *Deutsche med. Wochenschrift*, March 27, 1890, contains a reference to the favorable results obtained by Kobler, in the wards of Prof. v. Schrötter, in Vienna, from the use of codein, as a substitute for morphia, to control cough dependent upon bronchitis or tuberculosis of the lungs. Codein appeared to diminish the expectoration in some cases. Kobler gave it in doses of from 0.03–0.04 grains (1/6–1/2 grain) using each day from 0.1–0.15 grains (1½–2¼ grains).

At the meeting of the Medical Society of Berlin, March 17, 1890, as reported in the *Deutsche Medizinal-Zeitung*, March 27, Loewenmeyer reported a number of experiments which he had made in the Jewish Hospital, at the suggestion of Prof. Jacobson, with codein as a substitute for morphia. In the course of a year he has administered about five thousand doses to about four hundred patients, to some of whom it was given for weeks and even for months at a time. The conclusion arrived at, in a very large series of experiments, was that codein was a remedy analogous in its effects to morphia without its unfortunate results. The remedy was administered in various disturbances of the abdomen and pelvis, and in most of them the result was entirely satisfactory. The patients had some hours of rest from their pains, and slept. When the pains returned, the codein being repeated produced the same effect as before. In cases of pain depending upon serious physical alterations —as in cancer of the stomach—the result was not always the same. Sometimes the pain was assuaged; but in a large number of cases its results were unsatisfactory. In this respect Loewenmeyer estimates the value of codein, compared to that of morphia, as being as 50 or 60, or as 90 to 95. It was observed that the administration of codein for paroxysmal pains of great intensity was not followed by satisfactory results. This was noticed in cases such as those of gall-stones and kidney-stones. The use of codein proved especially satisfactory because it seemed to be entirely free from any deleterious influence upon the organs of the body, and never produced anything which could be called "codeinism;" and it seemed to be especially adapted for cases in which a remedy must be used for a long time.

The most satisfactory results in the use of codein was found in the treatment of diseases of the chest and respiratory organs. In phthisis the sense of oppression, the stitches in the side and the painful cough were controlled permanently by the use of codein; and in such cases Loewenmeyer was able to dispense entirely with the use of morphia. In cases of bronchial catarrh, pleuritis and pneumonia, codein was used continuously with good success. The same

was true in cases of pulmonary asthma. Patients who had come to regard their unfortunate condition as beyond improvement learned to use codein when they felt an attack coming on, and thereby shortened their attacks and diminished their pains very considerably.

In cases of heart disease toxic effects were never observed from the use of codein, and in many cases of disturbances of compensation codein produced unmistakably good effects.

In diseases of the nervous system codein did not prove to be of any very great value; and irritation originating in the brain or spinal column, as well as that originating in the peripheral nerves was not amenable to treatment with this drug. In cases of simple insomnia codein proved to be a very valuable remedy; and Loewenmeyer suggests that it would be useful as a substitute for morphia in cases of opium habit. The doses administered varied between three and five centigrams (half a grain to three-quarters of a grain). Where these doses were not sufficient, larger doses were found also to fail. Such doses were given from three to five times a day, and were continued in some cases for weeks and months without any unfavorable results. The codein was generally administered in the form of a powder, or in a mixture made up with a syrup. It was also used in the form of suppositories.

These results may encourage medical men to test for themselves the value of codein as a substitute for morphia. This will not be a new venture; for codein has often been used in this way before, with varying, and often contradictory results. But, with the experiences cited above to guide and encourage them, medical men may with good hope of succcess try the effect of codein as a substitute for morphia in a considerable number of ailments; and it may be that they will find it to be of much greater value as a hypnotic than they have hitherto supposed.

TUBERCULOSIS BY INOCULATION.

Koch's discovery of the tubercle bacillus has facilitated the diagnosis of obscure cases of tubercular diseases and has been followed by numerous reports of tuberculosis from inoculation. In the majority of these one point has by no means been indisputably proved. It has been clear that a wound of an apparently healthy patient had become tuberculous, but the origin of the virus and the process of infection has been only hypothetically explained. In some cases it may be claimed that the subject was tuberculous before receiving the injury and that the local infection was from within and not from without. In other cases it seems that the infection came from without. Foremost among the latter are the cases which have been reported by Lehmann, Hofmokl and Elsenberg, in which tubercular infection followed the Jewish ritual of circumcision; the custom of sucking the wound being practiced among the lower classes of Jews in Germany, and the infection being clearly traced to phthisical circumcisors.

The course of the disease after inoculation seems to be analogous to the course of tuberculosis as experimentally produced by inoculation in the lower animals. The wound at first heals; after a few weeks the cicatrix becomes hard and assumes a bluish-red color, and then changes gradually into a characteristic tubercular ulcer; this is followed by involvement of the neighboring lymphatic glands and later the more remote glands; then general infection comes on and finally death.

The above course was followed exactly by a case of tuberculosis by inoculation, reported by Dr. T. Deneke to the Medical Society of Hamburg, and quoted in the *Deutsche med. Wochenschrift*, March 27, 1890. The patient was a female infant, seven months old; and when first seen was in perfect health. The mother had applied to Dr. Deneke, to ask whether it would be advisable to continue to nurse the child, as she (the mother) had recently acquired a

cough and felt unwell; although, to all appearances, she too seemed in excellent health. She was advised to wean the child at once. A few days later Dr. Deneke was called to see the mother, who was suffering from slight hemoptysis. He observed at the time that the woman expectorated in a pot at the side of the bed. A few days later the infant fell out of bed and struck its head against this vessel, which broke. The child received several superficial cuts from the sharp edges and lay on the floor among fragments and sputum. The child was immediately taken to Dr. Deneke, who washed the wounds with sublimate solution and applied iodoform collodion. Within a week the cuts had completely healed.

Six weeks later the scars became swollen and assumed the typical bluish color; there was also a painful swelling of the left parotid gland. Gradually the characteristic features of tuberculosis became more pronounced; surgical interference was resorted to at an early date; and, although at first seemingly successful, was later of no avail, the malignant character of the disease being all too evident; and the child finally died, six months after the original injury. The autopsy is said to have precluded the idea of any other infection than the one mentioned.

It is well known that while the principal surgical antiseptics now in use may destroy the micro-organisms which usually cause traumatic infection, yet their immediate effect upon tubercle bacilli is very uncertain. It has been demonstrated that twenty-four hours are necessary for the sterilization of tuberculous sputa in a five per cent. solution of carbolic acid. Sublimate solution has also proved itself untrustworthy as a means for the immediate sterilization of the tubercle bacilli in the sputum.

While Dr. Deneke's theory of the child's inoculation is very plausible, it is not conclusive. It is quite possible, considering the intimate relations of mother and child, that the inoculation of the wounds may not have taken place at the time of the injury, but at some other time and in some other way.

TREATMENT OF PLEURAL EFFUSIONS.

Pleurisy in a large number of cases results in the formation of fluid, which varies in amount, and, while generally serous, may be purulent. The object of treatment is to remove the cause of the effusion, which is usually an inflammation of the pleura, and get rid of the effusion itself. To accomplish this object the patient is kept in bed and as much rest secured to the inflamed pleura as possible. Further, the various emunctories and absorbents of the body are stimulated to carry off the fluid. A pill composed of calomel, squill and digitalis has been much used. The salts of potash, especially the citrate, acetate and iodide, are also highly esteemed, and so are the tincture of the chloride of iron and jaborandi. Large fly blisters have also given good results in some cases. A more effective treatment consists in the administration of frequently repeated doses of Epsom salts in a very small quantity of water, while the patient is deprived of fluids to drink. The Epsom salt causes large watery evacuations from the bowel, but it is manifestly too exhausting for any but a robust subject.

If judicious medical treatment fails to effect the removal of the effusion, it must be accomplished by surgical measures. For a long time the propriety of withdrawing the fluid was considered doubtful, but thanks to the successes achieved by Trousseau and Bowditch, to the improvement by the latter of the aspirating apparatus, and also to the general recognition of the vital importance of surgical cleanliness, aspiration of a pleural effusion is now a very safe operation and one which is demanded imperatively under certain conditions.

How long should one wait for the absorption of a pleural effusion before removing it by operative means? To this question scarcely any two persons will give the same

answer. Some are inclined to defer the operation for a month or six weeks, others to operate within ten days. When one considers the effect upon the lung of compression against the spine, and that the longer it remains in that condition the greater is the probability that adhesions will form to prevent its subsequent expansion, while during this time the patient suffers much discomfort and is exposed to the risk of syncope—it would appear evident that it is far wiser to err on the side of an early operation. We believe that a serous effusion which shows no sign of decrease in volume within ten days or two weeks should be aspirated, even though there has occurred neither syncope nor great dyspnœa. The occurrence of the latter symptom is almost universally regarded now as an imperative indication for operation, and many hold it to be so even if the effusion is not sufficient to fill the pleural cavity. Other conditions which demand prompt operation are the coexistence of pericardial with left pleural effusion, of double pleural effusion, a murmur at the base of the heart due to a twist of the aorta, and, of course, of a purulent effusion. It is not sufficient objection to paracentesis to say that so long as the inflammation of the pleura persists the fluid will reaccumulate as soon as it is withdrawn, for the operation will give the lung a chance to expand, so that it will be less likely to be permanently injured than though it were kept compressed continuously; and this is one of the most important objects of the operation.

In purulent pleurisy operation should be resorted to as soon as the diagnosis is made, provided that the condition of the patient at all warrants the operation. Generally aspiration alone is insufficient, except, perhaps, in children. Two openings may be made and a fenestrated rubber tube passed through, so as to secure complete drainage and permit of thorough washing out of the pleural cavity; or resection of one or more ribs may be necessary to obtain sufficient room for drainage and irrigation. The result of either operation is very unsatisfactory, especially in hospital practice.

A favorite point for puncture in paracentesis is in the sixth or seventh interspace at about the posterior fold of the axilla. If the patient cannot be moved easily it may be better to puncture in the mid-axillary region. The amount of fluid to be withdrawn will depend upon the judgment of the operator as regards the effect produced upon the patient. The occurrence of much cough, dyspnœa, a sense of constriction, or of syncope is generally regarded as a warning to withdraw the needle. When a portion of the fluid has been withdrawn, nature frequently shows herself competent to get rid of the rest.

When sufficient fluid has been aspirated to meet the indications of the case, the needle should be pulled out rather quickly. The tissues will come together and prevent the entrance of air, but it is better to dust the point of puncture with iodoform and apply over it a piece of adhesive plaster. If the needle and the skin have been rendered aseptic before the operation and reasonable care is exercised after it, there is almost no danger from it.

CLOSTRIDIAL NEPHRITIS.

In the *Pacific Medical Journal*, April, 1890, Dr. F. V. Hopkins, of San Francisco, records, under the title of Clostridial Nephritis, the fatal case of a female patient, with flatulent dyspepsia, sleeplessness, nervousness, dyspnœa, weak heart, dropsy and albuminuria. An autopsy was not permitted. The urine contained bacteria: cocci, bacilli and spores, free and attached to tube casts, which were also present. Eight varieties of albumin were found. Cultures of the bacteria injected into the peritoneal cavity of rabbits produced ascites and a fatal issue; and on section the micro-organisms were found in the arteries of the lungs and kidneys of the animals.

The writer admits that a single case and a

few inoculations do not suffice to establish the independence of a distinct disease or of a specific bacterium. The three requisites of the latter are: 1. its constant presence in all cases; 2, its culture in artificial media, with reproduction of its kind; 3, production of the like disease by inoculation. In the experiments related these conditions have not been fulfilled. It is not stated how soon after voidance the urine was examined, nor whether or not it contained pus in addition to albumin and casts. Recent normal urine contains no bacteria. With the occurrence of alkaline fermentation, however, cocci, rods, spirilla and spores may be found. Bacteriuria has also been observed in infectious diseases and in cases of genito-urinary disease. Cystitis is not uncommon in females, and the urine may readily be contaminated from leucorrhœal discharge. If modern bacteriology has established any one point it is that specific bacteria are not polymorphous, and that they do not appear interchangeably as cocci and bacilli. Nor is it shown, in the experiments reported, that the inoculations gave rise to nephritis. The ascites may readily have been due to a traumatic or to a septic peritonitis.

On looking over the report before us we do not see any sufficient reason for thinking that Dr. Hopkins has described a new disease or that he is even warranted in his assumption that Koch agrees with the classification of the micro-organism he describes.

We refer to the matter in order to record the investigation, without committing ourselves to the opinions founded upon it by the investigator.

PHILADELPHIA HOSPITAL.—The summary changes made last December in the Visiting Staff of the Philadelphia Hospital were fully discussed at that time in the REPORTER. The latest development in the matter is that the Court of Common Pleas on May 17 granted an alternative writ of mandamus on the Mayor and Heads of the Municipal Departments, commanding them to make rules for appointment or promotion in the medical staff of the Philadelphia Hospital.

NEW REMEDIES AND APPLIANCES.

In this department, notice will be given of Remedies, Food Articles, and Instruments or Surgical Appliances of which specimens are sent to the Editor; it will bear the same relation to these articles that the department of Book Reviews now does to books.

A specimen of Van Houten's Cocoa has been tested by actual use and found to possess the advantages of concentration and aroma claimed for it by the manufacturers. When made according to the directions, is a very agreeable and nutritious beverage—the preparation is simple and easy, and does not require the addition to the cocoa of milk, water being the solvent called for. For children and invalids cocoa is a valuable article of food, and for all persons it is a wholesome beverage.

CORRESPONDENCE.

Foreign Physicians in France.

TO THE EDITOR.

Sir: An Editorial in your number of April 12, 1890, on "Foreign Physicians in France," in so far as your remarks in regard to American physicians practicing in France not having restrictions placed upon them, induces me to reply that *all* foreign physicians are expected to conform to the French law which insists on certain examinations being passed before entry into practice here.

Some years ago the Minister of Public Instruction used his right to give to foreign physicians permissions to practice, but this led to an abuse and to much recrimination by the French doctors who spoke English and found their practice encroached upon by foreign doctors. On their complaining to the Minister he gave the matter over to the body called *Le Conseil superieur de l'Instruction Publique*. In point of fact he simply sends the diplomas, presented by foreign doctors who wish to practice in France, to the Faculty of Medicine, to decide how many and what examinations they should pass. The new law about to be passed and acted upon now says: "All doctors who pass their examinations abroad, no matter what their nationality may be, cannot practice their profession in France unless they pass the examinations here according to law. Certain examinations will be omitted by the Minister of Public Instruction after the Su-

perior Council shall have advised him of the value of the diplomas presented, but in no case will all the examinations be omitted." Every applicant must pass some examination to show his ability as a doctor.

However, exceptionally, a doctor, *who lives and has his residence in his own country*, can be allowed an authorization to accompany a patient of their own nationality to the watering and winter stations of France, and to treat them for one year. This permission is only for one year, and can be revoked at any time.

This is the substance of the law, and the effect of it is that all foreign physicians must pass an examination if they wish to practice in France.

The Faculty of Medicine at Paris has a full and correct list of the schools of medicine all over the world, and they give a fair allowance to all recognized diplomas. The requirements here are four years' study and five examinations and a thesis. The examinations are each divided into two, and really make *ten in all*, and most French students take from six to seven years to do them.

As regards American diplomas, they are rarely counted for more than the first examination here, and American doctors are now asked to pass the four final examinations.

The English diplomas fare better, and they get two or three of the examinations off. Seldom more than three.

As regards the number of English and American physicians in practice in France, it is considerable, over twenty (22) in Paris alone, and from four to five in each of the watering-places, so that English-speaking people do not lack the attention of a doctor of their own race, and as there is always a certain number passing examinations and studying medicine in France, the supply is kept up.

Yours truly,

THOS. LINN, M. D.,

Paris, France.

State Board of Medical Examiners.

TO THE EDITOR.

Sir: The REPORTER of March 15 contained an abstract of a paper by Dr. John B. Roberts, read before the Jurisprudence Society on the necessity for an Examining Board, in which the conclusions of the writer in some particulars do not seem to convey the sentiment of the profession. He says: "Of course such a board, to be just, should not be expected to recognize any sort of medicine; there should be no mention or allusion in the law to special doctrines or special methods of practice. The present bill is framed with this as its underlying principle; and is equally fair to all forms or systems of practice, all of which have the same right to be represented in its composition."

We had hoped those who were interested in the effort to secure the passage of the proposed bill at the last session of the Legislature had profited somewhat by their experience, and if a repetition of the attempt were contemplated we earnestly desired the preparation and presentation of a bill that would deserve and command the support of the true profession. The indications, however, do not seem to favor this hope if the tenor of the extract we have just quoted from Dr. Roberts is to be accepted as a prelude. If this specimen of how not to do it is the "underlying principle" of the bill, nothing further, perhaps, need be offered to show that such a bill should not become a law.

If veritable sects in medicine had an existence they should be mentioned in the bill and proper disposition should be made of them.

As special schools or sects, however, exist only as a pretence, care should be taken to dispose of them accordingly, and no bill should be contemplated without distinct provisions on this very point. That there should be no mention or allusion in the law to special doctrines, special methods, schools or sects, while at the same time declaring that they all have a *right* to be represented in the composition of the board, partakes entirely too much of the "now you see it and now you don't" method.

To attempt the disposal of the pretended sects and schools by jugglery, is perhaps somewhat according to the method of *similia*, but we have had too much of this in former efforts at medical legislation.

True medicine, or a system upon a basis of demonstrated truth is the only system for legislative contemplation. The best means of the application of these truths is the method of the true physician. This is the only *system* and the only *method* for legislative contemplation. Any other so-called system is a pretence, any other so-called physician is a pretender. In the field of true medicine is embraced all medical truth, no area of truth remains as a basis for any other system or sect. Truth needs but to

be demonstrated to be accepted as the basis of this system.

Truths of the method of practice are all susceptible of demonstration, and need not and should not be accepted as the basis of a system until so demonstrated. There are no contradictions nor need there be even diversity of opinion in a system upon a basis of truth demonstrated. Truth never contradicts truth. Upon this basis there is no motive for partiality; truth is accepted from any source; *similia* truth is as acceptable as *contraria* truth; the truths of Hahnemann or of any other man are included in true medicine. There is no other form or system of medicine or method of practice for legislative contemplation. This is the "underlying principle" for a proper Examiners' bill, and a principle that can be comprehended by the average legislative mind even in the absence of either scientific or medical knowledge. If the contemplated bill has for its object the protection of the public against dangerous ignorance in those who are permitted to practice medicine, this is the "underlying principle" that will need to be observed.

Instead of contemplating an "underlying principle" that shall be "fair to all forms or systems of practice," the advocates of the necessity for an Examiners' bill should contemplate the "underlying principle" that should secure education in medicine; education in the practice of medicine upon a basis of truth, demonstrated and unmistakable truth, with no other name and in no other form.

As the fundamental truths of a method of practice are susceptible of demonstration and all demonstrated truth belongs to, and is embraced in true medicine, these pretended forms or systems of Dr. Roberts are without a basis of truth and without truth in their methods.

As so-called schools, sects or special methods of practice have not been created by Act of Assembly and have no existence or standing in law, the authority for their existence contemplated by Dr. Roberts is of some interest. They are a pretence, and the only authority for their existence is the *ipse dixit* of the pretenders themselves, and of their dupes. The law has not created an allopathic, homœopathic or any other system or school of medicine, nor need they be contemplated in framing an Examiners' bill.

These pretenders assert that schools exist, and they demand legislation to suit their purposes, while the State Constitution distinctly forbids that form of legislation. The Constitution of the State declares that the General Assembly shall not pass any special law granting any special privilege to an individual or a corporation.

Any law creating an Examiners' Board will be null and void unless the methods of the last attempt be altogether reformed.

Yours truly,

S. Updegrove, M. D.

Philadelphia.

Book Reviews.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the Reporter.]

SAUNDERS' QUESTION COMPENDS. Essentials of Diseases of the Skin, including the Syphilodermata. Arranged in the form of questions and answers, prepared especially for students of medicine. By Henry W. Stelwagon, M. D., Ph. D., Dermatologist to the Philadelphia Hospital, etc. With seventy-four illustrations. Small 8vo, pp. 262. Philadelphia: W. B. Saunders. 1890. Price, $1.00.

The publisher of the present excellent series of compends is fortunate in having secured so competent a person to write a compend on diseases of the skin. From the well-known ability of the author the scientific part of the book may be assumed to be accurate and up to date, and we have satisfied ourselves that the questions and answers are brief, clear and to the point. The preservation of the Latin forms of the names of the skin diseases might be objected to as undesirable in a compend. Under the treatment of ringworm we are surprised to see no mention of tincture of iodine, one of the most valuable remedies; this, with the application of a solution of iodide of potash in liquor potassæ, followed by one of corrosive sublimate in ether, or spirit of nitrous ether, will cure more chronic cases of ringworm than any other remedies. It is severe, but not poisonous.

This criticism is not intended to detract from the great merit of the book; it is an excellent book written by a thoroughly trustworthy man, and we cordially commend it to our readers.

MAY'S DISEASES OF WOMEN, being a concise and systematic exposition of the theory and practice of gynecology. For the use of students and practitioners. Second Edition, revised by Leonard S. Rau, M. D., Attending Gynecologist to Harlem Hospital, Out-door Department, New York, etc. With thirty-one illustrations on wood. 8vo, pp. 373. Philadelphia: Lea Brothers & Co. 1890. Price, $1.75.

May's Diseases of Women is a compilation from the writings of various distinguished men. The author, in his original preface, made no claim to originality, and Dr. Rau, in preparing the present edition, has kept in view the original scope of the work. As it stands now, the book is a closer approximation to current teaching by the best men than its predecessor, but in a number of points it is behind it; the latter is es-

pecially true of chapter XII, on "Affections of the Pelvic Connective Tissue."

The book is written in a plain, straightforward, clear style, and is handsomely printed. It fulfills a useful purpose, and is, in the main, what it claims to be.

Notes and Comments.

Tenth International Medical Congress.

By direction of Count Arco, the German Ambassador in Washington, the Consul General of the German Empire in New York, Mr. A. Feigel, sends the following, with the request that the medical and secular press of the country give it the greatest possible publicity. It will be noticed that this circular contains a great many particulars not contained in those previously printed.

CONDITIONS AND RULES REFERRING TO THE INTERNATIONAL MEDICAL AND SCIENTIFIC EXHIBITION IN BERLIN, AUGUST, 1890.

I. The Exhibition will be opened 11 A. M. on August 2, 1890, and closed, probably, August 11, P. M., in the Landesausstellungs Park; the sections of the International Medical Congress will meet in the same place.

Provisions will be made for dark chambers, rooms for experimental purposes, and appropriate demonstrations by experts.

The Exhibition is limited to the following objects: New or improved scientific instruments and apparatuses for biological and strictly medical purposes, inclusive of those for photography and spectral analysis applicable to medicine. New pharmacological, chemical and pharmaceutical materials and preparations. New foods. New or improved instruments for operations in medicine, surgery, special branches, electrotherapy, etc. New plans and models of hospitals, convalescent homes and establishments for disinfection and bathing, arrangements for nursing and transport. New hygienic apparatuses. New tables and charts of a statistical nature. Preparations and models. Teaching apparatuses. Medical literature.

Applications are expected before May 15, 1890,[1] and will be received by the Secretary General of the Congress, Dr. Lassar, Berlin N. W., Karlstrasse 19. They must be marked "Ausstellungs Angelegenheit" and accompanied with a printed visiting or business card containing name and address.

II. Of each application there ought to be two copies. It is requested that it should contain a brief and accurate description fit to be used in the compilation of the catalogue.

III. The decision as to the admission of all or part of the proposed exhibits rests with the special or general boards of organization; they will send an immediate reply.

IV. The cost of every square meter or part of a square meter of floor or table surface is 10 marks, of wall surface 6 marks. Two (2) meters in height of the wall are free for those adjoining the wall. Exhibits in the interior of the hall pay for one-half of the size of the walk immediately surrounding, in addition to the space occupied.

V. Tables will be furnished. Cases, shelves, repositories must be procured by the exhibitors under the supervision of the Committee. Electric light, steam power, etc., can be had by special arrangement.

VI. Inflammable objects are excluded. Insurance of those admitted will be secured free of cost, if notice of their value have been given.

VII. Packing and unpacking is free of expense to foreigners. Great care will be taken but no responsibility. Expressage by Messrs. Jacob und Valentin, Berlin O. Holzmarkt-strasse 65.

VIII. The exhibits must be delivered on or before July 20. Foreign goods will be free of duty, but certificates—to accompany the goods—ought to be obtained from the exhibition office, Karlstrasse 19.

FORM OF APPLICATION.

The undersigned being acquainted with the conditions and rules referring to the International Medical and Scientific Exhibition in Berlin, August, 1890, requests admission for the following exhibits:

SPACE WANTED { Floor surface Length Breadth / Wall surface Breadth Height

Exhibition will take place

(a) in own case: adjoining the wall?
inside?
(if the latter add a diagram)

[1] Count Arco has made such arrangements that applications coming from the United States will be received until the first of July.

(b) on tables to be furnished by the Committee
in flat cases?
exposed without them?
on shelves?
the wall surface above the table is required to the height of?
(c) on the floor, without case, etc. ?
(b) as drawings, diagrams, or in narrow cases attached to adjoining walls?
VALUE for insurance purposes.
SPECIAL REQUESTS.
BRIEF NOTES for Catalogue.
Name, etc.
1890.

The Bucks County Medical Society.

The Bucks County Medical Society of Pennsylvania had its semi-annual meeting May 7, 1890. Delegates to the State Medical Society were elected as follows: Drs. J. H. Krause, Q. L. Adams, A. M. Cooper, R. C. Foulke, H. Pursell, J. N. Richards, S. H. Wilson and M. B. Dill. Dr. Hiram Corson was present and spoke on the management of State Hospitals for the Insane. The Society adopted the following resolutions:

Resolved, That the Bucks County Medical Society recommends that the Superintendents of Hospitals for the Insane be relieved of all duties and responsibilities not strictly professional in their character and that all non-professional services be devolved upon the various boards of trustees, where they properly belong; and further,

Resolved, That this Society recognizes the fact that there are within the ranks of the profession many female physicians not inferior in attainments and ability to their brethren, and believes that if there is any special field in which the knowledge and skill of our professional sisters should especially be employed, that field will be found to lie among their own sex; and, hence, this Society advocates and advises the employment of competent women doctors to take charge of the wards for female insane in all the asylums of this State.

Dr. Thomas L. Allen read an essay on "Compound Dislocations of the Ankle-joint." The essay was discussed by Drs. A. M. Cooper and Joseph B. Walter. Dr. S. H. Wilson read an essay on "Some Lessons of La Grippe." The paper was discussed by Dr. Q. L. Adams, Dr. A. M. Cooper and Dr. Joseph B. Walter. Dr. H. Pursell read an essay on "Suppurative Orchitis." The president appointed as essayists for November, 1890, Dr. Q. L. Adams and Dr. A. F. Myers. The next meeting will be held at Bristol in August.

Ohio Medical Society.

The forty-fifth annual meeting of the Ohio State Medical Society will be held at Columbus, June 4–6, 1890.

The following papers are announced:

Errors of Refraction and Muscular Adjustment as Causes of Nervous Phenomena; C. F. Clark, Columbus; Cleanliness in Eye Surgery; B. L. Millikin, Cleveland; Carcinomata Mammæ; their early Diagnosis and Operation; Dudley P. Allen, Cleveland; A Further Study of Hernia; A. W. Ridenour, Massillon; Vaginal Extirpation of the Uterus for Cancer, with Report of Cases; C. A. L. Reed, Cincinnati; Vaginal Hysterectomy; A. B. Carpenter, Cleveland; Report of one Year's Work of Intra-Pelvic Surgery for the Relief of Inflammatory Diseases; R. B. Hall, Cincinnati; The Etiology and Treatment of Pneumonia; S. P. Deahofe, Potsdam; The Surgery of the Knee Joint, with the Report of Cases of Excision and Erasion; N. P. Dandridge, Cincinnati; Report of a Porro Operation, and The more frequent use of Chloroform in Obstetrics; J. F. Baldwin, Columbus; The Rôle of the Microbe; A. R. Smart, Toledo; Common Mistakes in Medical Practice; H M. Brown, Hillsboro; Do we take Cold? H. D. Hinkley, Oxford; Puerperal Fever; G. H. Colvill, Harrisville; The Treatment of Compound, Comminuted Fracture; S. L. McCurdy, Dennison; Phlyctenular Keratitis; C. W. Tangeman, Cincinnati; The Epidemics of Diphtheria, Scarlet Fever and La Grippe, at O. S. and S. O. Home; C. M. Galloway, Xenia; Acne: its Nature and Treatment; W. T. Corlett, Cleveland; The Influenza, as seen in the Country; W. W. Pennell, Fredericktown; Indications for Internal Urethrotomy; B. Merrill Rickets, Cincinnati; The Treatment of Scalds and Burns; A. H. Brundage, Xenia; Cough; its Relation to Intra-Nasal Disease; A. B. Thrasher, Cincinnati; A Case of Hematoma of the Ovary, following Chronic Catarrhal Salpingitis, with Operation and Recovery; R. Harvey Reed, Mansfield; Exact Dosage

in Electricity; E. F. Wilson, Columbus; A Case of Labor at Full Term, complicated by Placenta Previa; R. B. McCall, Georgetown.

The announcement of the meeting has been sent to many physicians in the State who are not members of the State Society, but who are cordially invited to attend the sessions of the Society and to become members this year, in order that they may give the Society the benefit of their professional experience and receive the benefit of the experience of other members.

From the titles of papers to be presented, it will be seen that the meeting promises to be both interesting and profitable. Further information may be obtained from the Secretary, Dr. G. A. Collamore, Toledo, Ohio.

Recovery after a Week of Total Anuria.

At the meeting of the Medical Society of the Paris Hospitals on the 14th ult., M. Féréol related a case of a man who, having inherited gout, had on two occasions, within the past two months, had attacks of suppression of urine lasting twenty-four hours, preceded by lumbar pains and hematuria, and followed by the emission of clear non-albuminous urine and a small calculus. A third attack had lasted for eight days, and during that week he only passed a few drops of urine. Then the anuria ceased abruptly, and within twenty-four hours he passed over ten quarts of watery urine containing 1.4 per cent. of urea, or six ounces in the twenty-four hours. At the same time he passed a uric acid calculus the size of a pea and several smaller ones. During the week of anuria he had only slight pain in the right side, and the bladder was empty. But there had been evidence of uremia, as during the last two days there was slowing of pulse to 52, lowering of temperature (37° C.) in the rectum, mydriasis, and a "subjective sensation of an ammoniacal odor in the urine." The treatment consisted in dry cupping to the loins, electrical applications night and morning, inhalations of fifteen quarts of oxygen daily, one quart and a half of milk, half a quart of Vichy water, and half a quart of an alkaline water and Beaujon's diuretic potion, on the sixth day a bath lasting fifteen minutes, on the seventh day a purgative, and on the morning of the eighth day five grains of caffein. M. Féréol did not think that the suppression was due to there being only one functionally active kidney, but rather that the passage and impaction of the calculus had caused a reflex inhibition of the secretion from the uninvolved organ. The quantity of urine afterwards evacuated was opposed to the first-named hypothesis. Urea must have accumulated in the blood, for the skin was dry and the bowels confined, except for a watery evacuation following the purgative. Sixteen days later the patient was in fair health, save for slight lumbar pain and the daily passage of uric-acid gravel. M. Royet mentioned a case, also a gouty subject, eighty years old, in whom a large number of calculi lodged in the ureter without uremia or anuria; when the calculi were passed he had successive attacks of anuria, none of which exceeded thirty-six hours. M. Hayem thought the case was opposed to the generally accepted view that an adult secretes in three days enough urinary poison to kill him. Roberts has said that myosis is characteristic of uremia from suppression, not mydriasis, as in M. Féréol's case if the amount of potash had been estimated in the urine following the anuria, it would have been possible to test the opinion of Voit, Feltz, and Ritter, who say that the toxic quality of urine is proportionate to the richness in potash salts. M. Hayem had always found a large amount of urea excreted after anuria even of short duration.—*Lancet*, March 1, 1890.

Chemical Vaccination against Yellow Fever.

Drs. Castaneda and Borda, of Bogota, with the sanction of the Minister of Public Instruction in Colombia, have been engaged in some experiments upon animals, with the object of discovering whether it is possible, by the injection under the skin of urine from yellow fever patients, which presumably contains some chemical substance due to the action of a specific microbe, to afford protection against the infection of yellow fever. They were led to this research from some experiments upon the "pyocyanic disease" by MM. Charrin and Ruffer, which were communicated to the Paris Biological Society in the early part of 1889, and which showed that the bacillus pyocyaneus, when introduced into the system of rabbits, causes the formation of substances which possess the property of producing the same physiological effects as the bacillus itself, and that

these bodies can be detected in the urine; and also in view of a paper by Dr. Carmona, of Mexico, upon yellow fever. Observations were made with yellow fever urine, both sterilized and non-sterilized, and an approximate idea was thus formed of the dose which ought to be safe for a human being. An opportunity for experimenting on a human subject was not long in presenting itself. A young medical man who was about to settle in practice in Cúcuta—a place which, it seems, has a very evil reputation as a perfect hot-bed of yellow fever—requested that an attempt might be made to afford him protection by means of "chemical vaccination." Accordingly, one-third of a minim of sterilized urine from a yellow fever patient dissolved in sixteen minims of distilled water was injected into his deltoid; this was followed by thirst, insomnia, headache, conjunctival redness, dilatation of the pupils, pain in the arm and subsequently in the legs, some erythema about the puncture, but by no rise of temperature. On the third day the symptoms had all disappeared. A second inoculation was performed with three-quarters of a minim of the sterilized urine in eight minims of diluted alcohol, the thigh being selected for the seat of puncture. This was followed by a marked rigor, pain in the head and limbs, fever, thirst and delirium, with jaundice of the skin and conjunctivæ and albuminuria. In three days all had passed off. Whether the adventurous physician will find that his "vaccination" renders him proof against yellow fever remains to be seen.—*Lancet*, March 1, 1890.

Pancreatic Hemorrhage.

An uncommon cause of sudden death has recently been recorded by Dr. F. A. Harris, of Boston. A working woman, thirty-five years old, was found on a doorstep, complaining that she felt very ill; a few hours before she had been at an "employment office," seeking work. The patrolman detecting a smell of alcohol in her breath seems to have considered that she was intoxicated, and had her removed from the doorstep to the station in a patrol wagon. On arrival she was found to be dead. A *post-mortem* examination was made; the body was well nourished, the brain and membranes, the heart, the great vessels and all the organs, with the exception of the pancreas and lungs, were healthy. The right lung was œdematous and there were some extravasations into the periphery of the lower lobes of both lungs. There was hemorrhage into the splenic end of the pancreas; the whole of this third of the organ being infiltrated with blood, which was easily expressed on section. There was also a small amount of blood effused into the subperitoneal tissue, extending nearly to the supra-renal capsule. The whole amount of blood was apparently not more than a drachm and a half, by estimate. In gross, the pancreas presented otherwise nothing unusual. It was not enlarged, nor were there any gross appearances of fatty degeneration or abscess or embolic infarction. — *British Medical Journal*, March 8, 1890.

Oil of Birch and Oil of Wintergreen.

The *American Druggist*, March, 1890, says that oil of birch and oil of wintergreen were reported in August, 1889, by Messrs. Trimble and Schroeter to be physically and chemically identical, both consisting mainly of methyl salicylate with the addition of a hydrocarbon having a formula $C_{15}H_{24}$, together with small quantities of benzoic acid and ethyl alcohol. They also stated that a sample of artificial wintergreen oil examined by them contained the properties neither of the natural oil nor of methyl salicylate. In reply to this, Dr. Power reports the examination of a number of samples, showing that natural wintergreen oil consists of methyl salicylate and 0.3 per cent. or less of lævogyrate terpene; that oil of birch, when pure, consists simply of methyl salicylate, and is inactive towards polarized light; and that neither contains benzoic acid nor, so far as he has been able to satisfy himself, any ethylic alcohol. In the January number of the *Am. Jour. of Pharm.*, Messrs. Trimble and Schroeter defend their position and combat some of these statements.

Death after Administration of Chloroform.

A traveler, Caleb Henry Jones, while undergoing an operation for some skin disease at Swansea, died suddenly during the administration of a mixture of alcoholic chloroform and ether.—*Lancet*, April 5, 1890.

NEWS.

—Typhus fever is reported to be epidemic in San Luis Potosi, Mexico.

—The American Surgical Association held its annual session in Washington, D. C., last week.

—The Association of American Physicians held its fifth annual session in Washington, D. C., last week.

—The Treasurer of the Rush Monument Committee reports that so far the sum of $1,325.19 has been raised.

—Dr. Edward C. Fletcher, of Plymouth, Penna., died May 13, of consumption, at the age of forty-seven years.

—The bill to regulate medical practice in Maryland, which passed the Legislature, has been vetoed by the Governor.

—The Department of Health in Chicago has been notified of two pronounced cases of leprosy in the Chinese colony in that city.

—According to the *Maryland Medical Journal*, St. Louis is to have a new medical school, called the Marion-Sims Medical College.

—The North Carolina State Medical Society will hold its thirty-seventh annual meeting at Oxford, N. C., May 27, 28 and 29, 1890.

—Five milk dealers, a restaurant keeper and a grocer were held recently to answer at court the charge of exposing for sale and dealing in impure and adulterated milk.

—The one hundred and twenty-fourth annual meeting of the Medical Society of New Jersey will be held at the Health House, Schooley's Mountain, N. J., June 10 and 11, 1890.

—At the meeting of the Medical Society of the State of California, held in Los Angeles in April, it was determined to invite the American Medical Association to meet next year in San Francisco.

—Dr. A. C. Hawley, of Eaton, Ohio, shot himself in his office, May 11. A letter beside him said that he had taken a quantity of morphine. Dr. Hawley was about thirty-two years old, and was graduated from the Miami Medical College in 1887.

—Dr. Walter A. Reid, a "magnetic" physician, was sentenced May 16, in the United States Court at Grand Rapids, Michigan, to one year's imprisonment in the House of Correction. He was convicted of using the mails for fraudulent purposes.

—A Dental Outpatients' Department in connection with the University of Vienna was opened April 21. The new institution is under the direction of Dr. Julius Scheff, and is the first step towards the establishment of a fully-equipped school of dentistry in the Austrian capital.

—The following changes have been made in the Faculty of the Medico-Chirurgical College: Dr. J. M. Anders has been transferred from Diseases of Children to Clinical Medicine; Dr. Ernest La Place has been made Professor of Pathology and Clinical Surgery; Dr. Samuel Wolfe has been made Professor of Physiology.

—The German Minister, Count Arco-Valley, announces to the Medical Press that he has written to Berlin to have the time for the reception of entries for the International Medical Exposition, in connection with the Medical Congress, extended so that those coming from the United States may be received after May 15.

—Dr. Antonio Parchini-Bonfanti, Director of the Rossi Casa di Salute at Milan, died recently. He gave much attention to hypnotism at a time when such studies were held in great contempt, and published an interesting work on the subject. He was offered the Chair of Forensic Medicine in the University of Pavia, but declined the honor.

The next State Legislature of Illinois will probably provide for an additional asylum for the insane, and the homœopathists propose to try to have it put in charge of their school of medicine. To this end they will unite in an effort to secure the nomination of general State officers and members of the Legislature pledged to give them what they want.

—The Detroit *Journal* is authority for the statement that a portion of the lungs of President Garfield were taken at the time of the autopsy and cut up and distributed among microscopists. Upon being interviewed as to the foundation for the statements, the *Journal* states that it knows of persons in Detroit who have such portions in their possession.

—Local committees of women in all the large Eastern cities are actively engaged in endeavoring to secure contributions of money for the purpose of founding a medical school in connection with the Johns Hopkins University, of Baltimore, Md., at which women may study medicine as well as the men. It is expected that all the committees will turn in at least $100,000 by June 1.

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Clinical Lecture.

RICKETS.—CRUSHED FOOT.—OSTEOMYELITIS.—ABSCESS OF THE BACK.—OSTEOMYELITIS.

BY ROSWELL PARK, M. D.,

PROFESSOR OF SURGERY AND CLINICAL SURGERY, UNIVERSITY OF BUFFALO.

Rickets.

I want you to notice how this child walks, the contour of his abdomen and the size of his head. See how much like a miniature alderman he looks, with his protuberant abdomen. The top of his head is nearly flat and his legs are widely bowed apart, not from distortion at the knee, but from curvation of the shafts of the tibiæ. In addition to the curvation, there is a spiral twist of the tibiæ. The peculiar overhanging belly made me think of congenital dislocation of the hips, but there is no such trouble; although there is some change in the shape of the femurs, and I think the neck of the bone is peculiarly implanted.

This is a well-marked case of rickets. You can see much more notable deformities than this in certain cases, but this is a fair sample of what you will see a great deal of in this country, notwithstanding the fact that books on the subject generally speak of America as a land of freedom from rickets, as from other evils.

By making long-continued pressure in the proper directions, the probability is that this child's legs may be made to grow straight. It is almost impracticable to make forcible pressure without causing ulceration; by making mild pressure for a long time we can avoid this. If a speedy result is desired, we might anæsthetize the child and bend the legs forcibly, and then put them up in plaster of Paris. In still worse cases we use the bloody method, cutting down on the bone, making a nick in it and breaking it at that point, or, in very bad cases, re-

moving a wedge-shaped piece of bone with the chisel, and closing up the gap. This really consists in producing a compound fracture; but we do it under the most favorable circumstances, the wound being aseptic and the fracture at the most desirable location, and the dressing is applied immediately. The operation does not make an absolutely straight bone; but it is approximately so. During the winter I shall probably have occasion to operate on cases of knock-knee, and I can then say more about this bloody method.

Crushed Foot.

This young man has had his foot crushed under an engine wheel. Not much is to be seen except a very much discolored and ecchymotic leg and an abrasion of the skin over the internal malleolus and behind and below the external malleolus there is a black patch of gangrenous skin which will slough off, leaving a raw surface which will heal by granulation and be covered by epithelium. The ecchymosis is due to blood escaping from the lacerated subcutaneous vessels and working its way slowly up under the cellular tissue beneath the skin. It does slowly what emphysema accomplishes rapidly, the process having already occupied six days. The fluid part of the blood is absorbed and the coloring matter remains for quite a time and, as the blood ages, it goes through certain well-marked changes in color.

When this man entered the hospital the heel could be moved on the foot, and there was crepitus, indicating fracture of the os calcis, which is pretty rare. There is no deformity in such a case, and the detection of the fracture requires some ingenuity. Fractures may, and undoubtedly do, occur in the tarsal bones without being recognized and being diagnosticated as bad sprains.

In this case the foot was dressed with a piece of clean blanket dipped in a hot hydronaphthol solution; for I have known pyemia to occur after a little subcutaneous bruising of this sort. Hot fomentations are no longer needed here, but I will continue the use of moist antiseptic compresses, and after the swelling has gone down a little more, and the man feels like moving his foot, I will put on a roller bandage snugly, and no splint will be used unless for the sake of protecting the foot after he gets up. He will probably recover the complete use of his foot.

Osteomyelitis.

Last spring this boy had high fever, delirium, swelling of the leg and other symptoms of acute infectious osteomyelitis or periostitis. As a result there was necrosis so that I had to remove almost the whole shaft of the bone from one epiphysis to the other. Since then it has healed up very nicely, nearly all the bone having been reproduced from the periosteum, but at two little spots the disease continues and there are sinuses discharging pus. As in malignant diseases there is a tendency of these tuberculous bone diseases to return, and I am never surprised, although I am sometimes a little chagrined, to have to operate a second time on a case of this sort. It is an experience which every surgeon has. The sharp spoon goes into quite a little cavity, which I will scrape out. I will pack the cavities with zinc oxide gauze and apply an outer dressing of dry zinc oxide gauze and bichloride cotton.

Abscess of the Back.

Here is a young Slav. About three weeks ago he was lifting something heavy, and strained his back. He now has a swelling on the back which is painful and fluctuating, and over which the skin is reddened. It is, undoubtedly, an abscess, probably due to tearing some fibres of fascia or possibly muscle, or to laceration of connective tissue. It is barely possible that this might be an empyema which is pointing through between the ribs. I remember once being called to see a lady who was thought to have cancer of the breast, but the case proved to be an empyema which had opened behind the breast and was pushing the breast forward. If this were empyema, I would expect the physical signs, such as coughing, etc., which are not present here. There is good resonance all about the tumor.

This swelling might be due to a perinephritic abscess; but it has come on too rapidly.

I shall open the abscess at the place which shall be most dependent when the patient sits up. [About 600 c.c. of creamy pus was removed, and the cavity was irrigated with a 1–3000 mercuric chloride solution.] I can now push my finger underneath the skin in all directions. I will resort here to overdistention, which washes the cavity out well and stimulates healing, and will then insert a drainage-tube, fixing it with safety-pins to

prevent its slipping into the cavity. I once saw a drainage-tube lost in the pleural cavity through omitting this simple precaution.

Osteomyelitis.

The next patient is a man twenty-two years old. When a boy, he fell while playing base-ball and hurt his knee. As a result, there was local pain, tenderness and swelling, and he was confined to bed for ten weeks. Disease of the lower part of the right femur has followed. It is, undoubtedly, another case of suppurative disease in bone with more or less local destruction of tissue, coming on after the manner of an acute osteomyelitis or periostitis or, more probably, a combination of both. You see a sinus in the lower part of the thigh which is discharging pus. When the sinus closes, he begins to have severe pain with redness of the overlying tissues, then it bursts out and he is free from pain and has the discharge for awhile; and so for years he has alternated between retention of the pus and spontaneous evacuation and relief. Little pieces of bone have been discharged, making it, beyond the possibility of doubt, a case in which the bone itself is involved; but whether it is caries or necrosis, I cannot yet say. I think it is a combination of both.

The sinus was opened and curetted, firm bands of cicatricial tissue making this difficult. After removing the diseased bone the sinus was packed with zinc oxide gauze, and an antiseptic dressing was applied.

COMMUNICATIONS.

THERAPEUTICS OF COLD.[1]

BY S. N. WILEY, M. D.,
NORRISTOWN, PA.

When we consider the fact that almost all diseases that we, as physicians, are called upon to treat originate in inflammation or are more or less affected by it during their progress, it becomes at once evident that any means that will prevent, modify or obliterate an inflammation, in any or all of its stages, is a great power in the physician's hands.

[1] Read before the Montgomery County Medical Society, March 5, 1890.

The great surgeon, Gross, has said that "the smallest pimple on the nose is as much an inflammation as an erysipelas that covers the face and head. An ulcer of one of the mucous follicles of the mouth does not differ, in principle, from an ulcer of one of the glands of Peyer, which are the seat of so much disease and danger in typhoid fever."

Many diseases vaguely called nervous, are nothing but forms of inflammation, the nature and seat of which it is often difficult, if not impossible, to determine. Their predominant symptoms are of a nervous character, and hence the diseases which they accompany are usually considered as nervous, while in reality the contrary is too frequently the case.

In all diseases attended with an inflammation there is a local or starting point from which the morbid process extends. This is true whether the disease be a local or a general one, whether it has its origin from within or from without.

In all acute inflammations, whatever their cause or situation, active congestion is a necessary antecedent of the morbid action, one of the first links in the chain of the malady. Hence it may be regarded as a part or parcel of the inflammatory process ushering in the disease and continuing up to the very point of effusion—in other words, ceasing only where effusion commences.

But active congestion is not always necessarily followed by inflammation, although prone to pass into that state if it continues even for a short time. The cause which induced it having been removed, the vessels cease to attract blood in undue quantities, and, getting rid of the surplus, they speedily regain their normal caliber and function.

The most prominent external symptoms of inflammation were tersely stated by an ancient writer as "rubor, calor, cum tumore et dolore." The immediate cause of the change of color in inflammation is a preternatural afflux of blood.

With discoloration, heat is one of the most common and constant effects of congestion and inflammation, and hence a valuable symptom of the disease. It is well known that the extremities—the hands, feet and ears—are habitually cooler than the trunk, or portions near the trunk, because they have naturally a more feeble circulation; hence, in inflammation, although their temperature may not reach 98.4° F., yet, if there be any elevation of heat over and above what these parts show in a

healthy state, it is to be considered an actual augmentation.

Swelling is seldom entirely absent in inflammation of the external parts of the body, although it may be in that of certain internal structures. The immediate cause of swelling is twofold: first, engorgement of the vessels of the part, and secondly, and mainly, effusion of serum and fibrin.

Pain is one of the most constant symptoms of congestion and inflammation, usually setting in early and steadily, increasing in severity until the morbid action has attained its maximum.

As a general rule, the pain is greatest at the focus of the inflammation; it is usually fixed in its situation, but sometimes it darts about in different directions. It is increased by motion, by pressure, and by posture. Pain is sometimes felt at a point more or less remote from the seat of morbid action, and therefore does not always serve to denote its existence.

But pain is not always present even though the inflammation be extremely violent. This is well shown in typhoid fever, attended as it is with inflammation of Peyer's glands, often terminating in extensive ulceration, and yet the patient complains of little or no pain from first to last.

Now how is pain produced? Many theories have been advanced, but the most plausible opinion is that pain is caused by the compression of the nerves of the part by the distended vessels and the effused matter, thereby impeding or interrupting the transmission of nervous fluid and causing it to accumulate or explode at the point of obstruction. Of course the various component structures of the nerves themselves are also inflamed.

We know then that the most prominent and constant symptoms of external inflammation are discoloration, swelling, heat and pain. Now what occurs in the external parts of the body immediately under the eye of the observer may be supposed to happen under similar circumstances in the internal viscera. Thus we know that when there is a sudden repulsion of the cutaneous perspiration the blood is extremely apt to collect in the lungs, causing active congestion of the pulmonary tissues, which unless speedily relieved will end in a more or less disastrous pneumonia.

Now as all inflammation, in whatever part of the economy, is attended with heat, swelling, discoloration and pain, and as these symptoms all depend to a greater or less extent upon the superabundance of blood in the part, it follows that, if inflammatory diseases were recognized in their early stages, and we had an ideal remedy which would allay the congestion and early inflammation, allay the heat, pain and swelling, we should be able to arrest the disease in its very infancy; to cut it short, and thereby save our patients much suffering, much loss of valuable time and often to save life itself.

A specific or a universal remedy for this purpose has to the best of my knowledge, not yet been found; but the remedy which in my observation and experience comes the nearest to fulfilling all the requirements under most circumstances is *cold*, applied either by means of ice or by means of ice water. Cold has been employed in the treatment of inflammation almost from time immemorial; but like many other good things it has at times been forgotten or laid aside for newer remedies. Medical history informs us that there was a period, about the end of the last and the beginning of the present century, when cold was almost unknown as a therapeutic measure.

Within my own recollection, to apply cold externally or to give a patient suffering from a high fever ice to eat or cold drinks was to fly directly in the face of public opinion. It is not difficult for one to conceive how cold operates in subduing morbid action. Its chief effect is evidently that of a sedative, lowering the temperature of the part and causing contraction of the vessels, thereby relieving pain, swelling and tension.

It is particularly applicable to inflammation in its incipient stages, where there are, as yet, little effusion and no structural lesion. When the action has reached its acme, threatening suppuration, or a tendency to gangrene, it is usually hurtful, both to part and system, and should be promptly discontinued. Cold may be applied in several different ways: the cold bath, the graduated bath, cold effusions, the cold pack, cold sponging, cold compresses and frictions with ice.

There is little or no reason for believing that the application of cold in any of its forms has power to modify the conditions upon which the production of heat depends; but there can be no doubt that under its use distressing and dangerous symptoms are often much relieved and the whole morbid process arrested.

In general fevers of great violence the systematic application of cold by means of baths or the wet-pack is capable in many cases of rendering important service. The temperature of the bath should range from 65° to 80°; its duration should not exceed ten minutes. The patient, when removed to the bed, should be wrapped in a sheet without drying, and should be comfortably covered. The greatest objection to the general bath in private practice is the fact that it is seldom convenient to have a bath brought to the bedside of the patient; and in a serious illness it causes too much disturbance and movement to take the patient to the bath. For children a common wash-tub answers every purpose and is found in every house.

When the wet-pack is employed, two beds should be used side by side. The body and thighs of the patient should be wrapped in a sheet wrung out of cold water, and allowed to remain in the pack ten or twenty minutes. As the sheet becomes heated the patient should be placed in a fresh one on the second bed; and the transfers should be continued until the desired fall of temperature is effected. Usually about four packs will be found to equal one bath.

In general fevers, cold sponging and frictions with ice are the most convenient and at the same time most agreeable and effective modes of reducing heat.

I should exhaust your time and patience were I to recount the various forms of applying cold to the body in all the many forms of fevers, as I have used it—for I am giving you my personal experiences. Suffice it to say, that I have found it the safest, the most constant in its effects, the most agreeable to the patient, as well as applicable to the greatest number of cases of any or all antipyretics.

Did time permit, it might be interesting to refer to the use of ice and cold water, internally and externally, in cases of typhoid fever, scarlet fever, puerperal fever, cerebro-spinal fever; in cases of acute gastritis; in ulcer of the stomach; in hemorrhage from the bowels; in hemorrhoids; in diphtheria; in acute laryngitis, pharangitis, and tonsillitis; and in croup—all of which are attended with more or less severe inflammation, and in all of which I have found the use of ice and cold water not only very grateful to the sufferer, but of the highest value. Its use is also invaluable in inflammatory affections of the membranes of the brain and spinal cord, in concussion of the brain, and in thermic fever.

In the convulsions of children, cold applied freely to the head, either by means of ice-water poured on, or by means of bladders of ice, will be found the safest, the most prompt, and efficient means in breaking up the convulsions; and the continued use of the cold will prevent their return until the cause of the trouble can be removed.

In the foregoing maladies experience has taught me that, notwithstanding the teachings of the books to the contrary, cold may be applied, in the form of bladders of ice, continuously for many days in succession, without doing any harm whatever. The ice-bag must not, however, be laid on the part and allowed to remain. I invariably direct an attendant to sit by the patient and to devote his or her whole time and attention to the frequent change of the location of the ice-bag. And just to the degree in which my directions are carried out, do I get good or bad results.

In headaches, and in all conditions in which the head is hot and the face flushed, applications of ice will be found most beneficial. In severe cramps of the stomach and bowels, the pouring of cold water from a pitcher, held three or four feet above the patient as he lies on the floor, acts like magic in allaying all the symptoms.

How often do we see a patient at our first visit suffering from pain in a part or an organ, possibly without any general fever, and with no other symptoms; and, instead of searching carefully and intelligently for the cause of the pain or distress, prescribe an anodyne, to go our way, only to find on the morrow that our patient has had a chill, and is suffering from a high fever, that a local congestion has passed into inflammation, and that he is now in the clutches of some formidable disease, whose beginning had a slight cause. Had the early condition been recognized, and the proper remedies for congestion and beginning inflammation been applied, we might have saved for him time, distress and possibly his life.

In local inflammations from whatever cause my main reliance is upon the use of ice or ice-cold water. In applying ice I find the best results from its use in a hog's bladder, rather than in the rubber ice-bags sold for the purpose. In glandular swellings, in boils, in abscesses and carbuncles, when seen, as they often are, in the early

inflammatory stages, before suppuration has taken place, I invariably direct the use of ice, and I am scarcely ever disappointed. A large piece of ice is procured and placed dry in a basin or other vessel by the side of the patient. Two compresses, large enough to cover the inflamed part, are wrung out of water and placed upon the ice. As soon as it is cold one is laid upon the part, and while it is there the other is on the ice; the transfers are made at frequent intervals until the desired end is attained. Here, as in most cases, the bladder of ice will be found convenient and unobjectionable.

Under its use the heat, the pain and all the symptoms will quickly subside, and in a few hours what promised to be a dreaded affection has been entirely obliterated, and the parts resume their normal appearance and function.

I have seen in my own practice, in eleven years, only two cases of mammitis, or gathered breast; and both of these were the direct result of disobedience of my orders upon the part of the nurse. And yet during that time I have seen a large number of cases in which the mammary gland was involved in the inflammatory action; when the organ was exceedingly large, hard, heavy and lumpy, exquisitely painful, and intolerant both of manipulation and pressure; with the skin hot, discolored, tense and glossy; with the secretion of milk entirely arrested or much diminished; with the ducts almost entirely choked up; the patient herself exhibiting well-marked constitutional symptoms.

If permitted to proceed, every one knows that suppuration will inevitably follow, entailing a great amount of suffering and distress upon the mother, the present and possibly the future loss of the gland's usefulness, and a great deal of annoyance to the physician. Under such circumstances what is to be done? Apply a bladder of ice, and in a very short time all the symptoms, both local and constitutional, disappear. Then with gentle rubbing and the application of a suitable pump, the organ is soon in its natural condition, with its present and future usefulness saved.

In acute inflammations of the joints, ice is the most valuable of all applications. I am very frequently met with expressions of surprise and often with opposition where the use of ice and cold water are suggested, either in general fevers or in local inflammations—this in families where I have occasion to use it for the first time.

In all cases where ice and cold water have already been judiciously used, I find the patient and his friends not only ready but anxious for their use under similar circumstances. I am very frequently told by my patients of local inflammations which they have broken up, of diseases they have intercepted or prevented by means of ice and cold water; and in nearly all families where I have ever treated a case of convulsions of children, when like trouble comes, I find them on my arrival pouring cold water on the little sufferer's head.

New antipyretics are constantly being brought to our notice, through circular letters from the manufacturers, through the advertising pages of our journals, through personal appeals from agents, and in articles written by physicians too evidently in the employ of the manufacturer—some of which seem to be very good—some of which certainly are unreliable. But as long as the human system remains as it is, and the winters continue to be cold enough to produce ice, I want no better remedies in the majority of cases, than those which nature so strongly indicates—ice and cold water.

TREATMENT OF SUPPURATION OF THE MIDDLE EAR.

BY L. J. HAMMOND, M. D.,

ASSISTANT SURGEON TO THE EAR DISPENSARY, UNIVERSITY OF PENNSYLVANIA, PHYSICIAN TO THE PHILADELPHIA DISPENSARY.

The majority of acute inflammations of the middle ear are seen first by the general practitioner. Especially is this so in country practice. Occurring, as they do, from exanthematous diseases, colds and teething, it is he who can be of the greatest service in preventing permanent impairment of hearing, which is most likely to occur if such diseases are neglected at this stage; while their dangers will be largely averted if they are properly treated. With these facts before us, a few suggestions as to how diseases of the ear can best be treated by those who have not had the advantages of a clinical experience may be of service.

The first symptom of inflammation of the middle ear is pain, which should be relieved by blood letting, with leeches (Swedish), two to four in number, applied over the tra-

gus, or by the use of the artificial leech over the same region. Should it be desired to withdraw more blood, the flow can be kept up by the use of hot flaxseed poultices, applied over the parts. In infants and in very old persons it is best to rely entirely on moist heat, which can be applied by wringing flannel out of boiling water and applying it over the ear, or by the use of flaxseed poultices, which should be made large and thick and placed over the ear as hot as can be borne, care being taken to place a cotton pad behind the auricle in order to prevent its being pressed backward, which would greatly increase the pain. Over the poultice should be placed oiled silk—or, in its absence, paper—and a bandage or handkerchief to hold it in position. The poultice should be replaced by a hot one as often as it cools, and this should be continued until all acute pain subsides. At this stage the inflammation may subside. If it does, the use of moist heat should be discontinued, and dry heat may then be used. This is best accomplished by applying large pads of absorbent cotton over the ear and continuing their use until all tenderness over the tragus or mastoid regions subside.

In the majority of cases of this sort the inflammation goes on to a higher stage, namely, that of pus formation. Then the membrane ruptures spontaneously, if it is not opened by paracentesis; and a free discharge of pus follows. The acute pain at this stage usually subsides. Here, as in the above condition, the use of moist heat should be discontinued and cotton pads should be substituted. In addition to this the canal should be thoroughly cleansed, either by the use of an ear syringe and warm water; or, in its absence, the same result can be accomplished by the use of a sponge shaved to a point at one end. The head should be placed in a horizontal position and warm water allowed to flow from the sponge into the canal, which can be dried by inserting the pointed end of the syringe or of the sponge in the canal. The canal should be straightened during the cleansing by drawing the auricle outward and slightly backward. The patient should several times during the cleansing of the canal inflate the ear by the Valsalva's method, which consists in closing the mouth, holding the nostrils with the fingers and by a forced expiratory effort forcing air through the Eustachian tube into the middle ear cavity. In this way the pus which remains in the middle ear cavity is forced through the perforated membrane into the external canal and may be removed during the cleansing. After thorough cleansing, a cotton plug, 1¼ inches in length if the patient be an adult, and 1 inch long if a child, can be made by loosely twisting absorbent cotton round a match of proper size for the canal. The plug may be inserted into the auditory canal and it will act as a protector from the air and as a drain, and should be removed as often as it becomes saturated with pus. After each cleansing, which should be done once daily, the cotton pad should be again applied. This method of treatment should be continued until all tenderness over the regions described has subsided, after which time insufflations of finely powdered boric acid, or—what I much prefer—equal parts of iodoform and boric acid, should be blown into the canal, either through an instrument made for the purpose (an insufflator), or, in in its absence, through a quill of sufficient size to fit the canal.

As inflammations of the middle ear are generally the result of an extension of inflammation from the naso-pharynx, treatment of these surfaces should be instituted from the onset of the attack. The nose and throat should be thoroughly cleansed with an alkaline solution such as Dobell's solution, or:

℞ Listerine . . . . . f℥i
Glycerini . . . . . f℥iii
Sodii bicarb.
Sodii biborat. . . . . āā ℥jss
Aquæ q. s. ad. . . . . f℥iv

M. Sig. f℥i in f℥ii warm water snuffed up the nose, and as a gargle for the throat three times daily.

The latter I have found very useful in removing the muco-purulent discharge from the naso-pharynx. If in a child, it can be used by injecting it through the nasal canthus with a sponge. After thorough cleansing with the solution, the throat should be gargled with some good astringent, such as:

℞ Acid. tannici . . . . . ℥iii
Pulv. aluminis . . . . . ℥ii
Potass. chloratis . . . . . ℥i
Glycerini . . . . . f℥i
Aquæ q. s. . . . . ad. f℥iii

M. Sig. f℥i in f℥ii warm water as a gargle, t.d.

If the patient be a small child, small quantities of chlorate of potash, mixed with sugar, can be placed in the mouth and allowed to dissolve. The patient's general condition is usually below par, and this state

should be met with stimulants and tonics, such as milk punch, beef tea, tr. ferri chloridi and cod-liver oil. The patient at the same time should be kept in the house, and if possible in bed.

IMPROVEMENT IN TELEPHONE PROBE.

BY HARVEY B. BASHORE, M. D.,

WEST FAIRVIEW, PA.

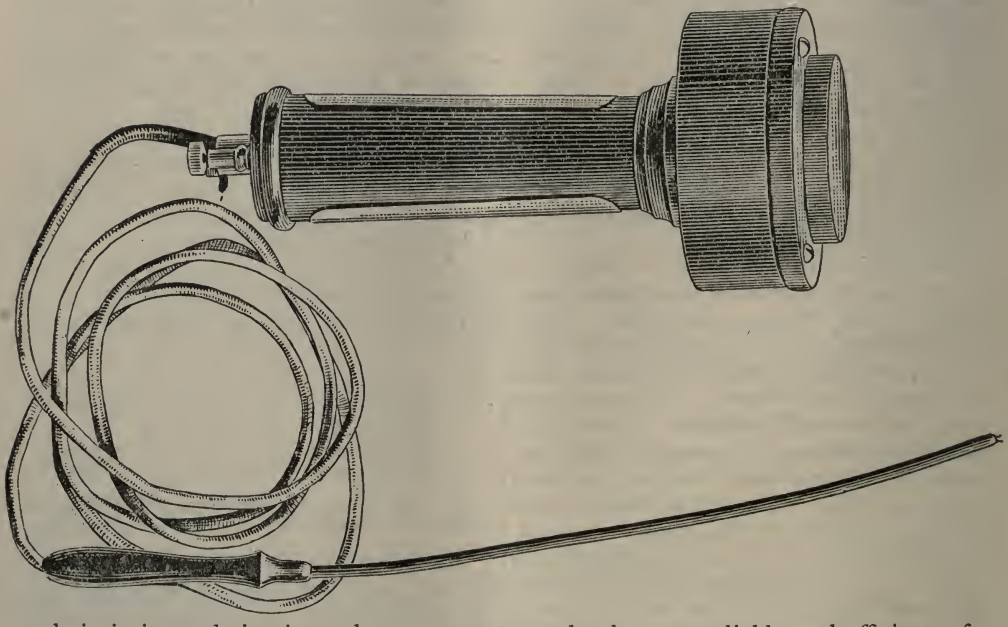
In the REPORTER, September 28, 1889, I described the Telephone probe, as consisting of a telephone, a probe and a battery.

I again wish to speak of this instrument, because of certain improvements I have made in in it, rendering it much more practical and useful. The battery, as such, is dispensed with; and the instrument, as I have now made it, consists of a telephone and a probe proper. To the handle of the telephone are fastened, at opposite points, a zinc and copper plate. The zinc plate is connected with one end of the coil; the copper plate with one binding post, and the remaining end of the coil with the other binding post.

All these connections have been made in the handle of the telephone, and only the two plates are visible. By grasping the handle of the telephone with the hand a current is generated, due to the contact of two dissimilar metals. This is made apparent, if the circuit be closed, by a clicking sound in the instrument; and this sound is heard whenever a current is "made" or "broken" between two good conductors, that is, the metals and carbon. The probe consists of a flexible canula, containing two insulated wires, the tips of which project a short distance beyond the canula. The flexibility of the probe is, I think, a distinct feature.

If, now, the handle of the instrument be grasped, and the projecting tips of the probe come in contact with a metal, such as a bullet in the tissues of the body, a metallic contact is made; and the indication is given in the telephone.

Of all electrical probes, the telephone must be the most reliable and efficient; for the telephone, used as a current indicator, is the most sensitive galvanometer we possess, indicating a current less than .000001 that of a Le Clanché cell. In comparison with any other probe, using the electricity of the body, this must be the most efficient, as giving the least trouble for its arrangement, and indicating the presence of any metal, whether similar to that of the terminals or not.



The instrument thus described has been made for me by Messrs. Leach & Greene, of Boston; and to them I owe thanks for the efficient manner in which they have carried out my ideas.

TYMPANITES FROM OVER-FEEDING.

BY J. E. FREE, M. D.,
BENEZETT, PA.

In M. P. Hatfield's Chautauqua text-book on Physiology mention is made of a rare case, in which a man split his diaphragm and died, in consequence of eating four plates of potato soup, and drinking numerous cups of tea and milk, followed by a large dose of bicarbonate of soda to aid digestion. The gas which would be generated under such circumstances might not be hard to identify, if the chemical constituents of the ingested food are taken into account, together with what is in the stomach before eating. But such knowledge will not avail much if it is not supplemented by sound therapeutics. If a man is obliged to carry his accumulation of flatus around with him until the country doctor can demonstrate to his satisfaction what reagent will, by chemical affinity, cause that wind to disappear, he might drag out a miserable existence for some time.

I have never seen the diaphragm ruptured, but I have frequently attended patients whose voracious appetites have led to the production of gas to an enormous degree. In this section of country many men gain a livelihood by working in the lumber woods, and in order to do the work required, they eat an astonishing quantity of food. Sometimes after an unexpected snowfall, or when a break-up is threatened, they work day and night. At such times they eat as many meals at night as in the day. Loss of sleep, and irregularity of diet, together with neglect of all hygienic measures is the cause for the frequency of what the lumbermen call "cramps."

The case of a man in one of the camps five miles distant will illustrate the subject. He is about forty years of age, is a young married man, is a total abstainer, and during the war was in Andersonville and Libby prisons. He blames his present complaint upon the hardship and exposure of that period; but it seems as if it were possible to do more damage to the body by an over-abundance of food than by its lack.

After a hearty meal at night this patient goes to bed feeling well. Two or three hours later he is awakened by pain in his stomach. This is not severe and comes by spells, which gradually increase in severity and duration until the agony is pitiable to witness. The first time this winter that he had an attack he swallowed all kinds of nostrums without receiving any benefit, and finally sent for a physician, who responded by sending a dozen morphia powders, with the information that he had cholera morbus.

He used the most of these powders without receiving any benefit. Then I was summoned and the patient received two ten-drop doses of chloroform and was up walking about the camp in fifteen minutes. Relief was so quickly accomplished that there appeared to be something not exactly straight about the matter. But the patient insisted that several times when he had obtained the right kind of medicine something seemed to "let go" in his stomach and he was cured. Not wishing to put too much faith in his description, a dose of calomel and ipecac was prepared; but just at this juncture the physician who was first called made his appearance and the case was turned over to him.

Three weeks later, at about two o'clock in the morning, I was again summoned to this man's bedside. He was having a rehearsal of the same performance.

I gave him chloroform and had the satisfaction of seeing him recover in a few minutes. When leaving I told him to be sure to attend to the function of the bowels, and ordered a mercurial purge. He had taken several morphia powders before I saw him this time. Two weeks after this attack he felt another coming on, and aborted it with chloroform, a supply of which he kept on hand.

He now enjoyed perfect health for two weeks more, when the enemy again moved on his works without warning. His first act was to take a purgative; but it did not relieve the trouble, so he sent a message for me, with the statement that he was dying. If he had told the truth, perhaps there would have been a rupture of the diaphragm; but he did not, and that is the closest I have ever come to witnessing this injury. By the time I reached him he had used several doses of the chloroform without benefit, consequently a hyperdomic injection of morphia was administered. A mustard plaster had been applied to the abdomen early in the attack, and now a flannel rag was laid over the region of the pain. It was no sooner put on than it was torn off with a shriek of agony. He said, in explanation, that it felt like a shovelful of hot coals. Inhalation of chloroform was finally resorted to, and relief was

almost magical. But the pain returned, considerably moderated, to be again subdued by the anæsthetic. This was repeated several times until the patient was able to go about his business.

The morphia was a valuable adjunct to the chloroform, although the rôle of the remedies in the disappearance of the tympanitic condition is not as clearly defined as we might wish. Morphia subdues the pain by its stupefying influence upon the nervous system, but would not influence the escape of the gas. I have often seen the pain return as soon as its grasp was relaxed upon the nerve centres.

Tincture of assafœtida, tincture of robina and fluid extract of cascara sagrada, in equal parts, acts nicely in getting rid of gas, by the rectum. A teaspoonful at a dose once relieved a female patient, but set up a temporary, griping diarrhœa, a sort of *similia similibus curantur*. Afterwards ten drops of the "onion medicine," taken daily, completed the cure.

Only once was there any eructation while using chloroform in the case above described. What physiological effect chloroform exerts I do not know. It has been known to relieve this kind of trouble when applied locally, by its counter-irritant property. Again it will accomplish the same end when given by the mouth; perhaps it does so by exciting the same kind of influence as it does upon a carious tooth. When it is inhaled, the relaxation which results is the cause of the relief from pain.

Society Reports.

AMERICAN MEDICAL ASSOCIATION.

Forty-First Annual Meeting, at Nashville, Tenn., May 20 to 23, 1890.

First Day, May 20.

The meeting opened with about 500 delegates and permanent members in attendance. It was called to order by Dr. W. T. Briggs, who delivered an

Address of Welcome.

He reminded his hearers of the greatness and dignity of the body, which included every quarter of the vast confederacy of States, and was devoted to the most humane calling to which the intellect and energy of man may be devoted, and said that they had not made the great pilgrimage to a common centre for purposes of self-aggrandizement, but to refresh their loyalty to the principles established, and to contribute to the common treasury of scientific facts. Just a third of a century ago—the period of a generation—the Association had honored Nashville by convening there. What changes have taken place in medical science, in the profession, in the personal membership of the Association and in the city that welcomed them. Then the city was an inland town, with not more than 20,000 inhabitants, and none of the marks of a progressive American city. Even then, however, it was refined and classic beyond towns of its size, and had for a long time been a renowned seat for education and learning. It was distinguished as the home of men whose names resounded throughout the nation. Shortly thereafter marching armies had trod it in the mire of devastation, but when the war had passed, its people bent all their energies to build up its waste places, and to build up, also, their loyalty to the General Government from which they had been alienated. The prosperous city stretching in every direction from the crest of Capitol Hill, its suburbs dotted with the chimneys of many factories, its stately universities and colleges, its hospitals and asylums, its libraries and handsome public buildings, its animated streets clanging with the whirl of seventy-five miles of electric railway, traversing its main portions and binding its extensive area, the vigorous movements of its people immersed in the activities of life, all attest how well the work of restoration and advancement is being accomplished. To such a city he voiced the sentiment of its every citizen in welcoming this honored body, and wishing its members to feel that the meeting of 1890 had not only been profitable, but that it was good to have been here, and, when they leave, their hands shall ache from the grasp of the warm right hand of Southern hospitality.

In the absence of Gov. Robert L. Taylor, who had been called to the eastern division of the State on business, Hon. Thomas D. Craighead, State Senator, welcomed the body in behalf of the State.

Hon. C. P. McCarver, Mayor of Nashville, extended the welcome of the city in a humorous and appropriate address.

The programme of the meeting was then announced, and letters were read from some absent members.

The President, Dr. E. M. Moore, of Rochester, N. Y., was then introduced and delivered his address on

Hygiene in its Relation to the Government.

He said that hygiene does not receive the attention which it deserves in this country. Yet we have no cause to despair, for we are progressing, slowly though it may be, in the right direction. In proof of this assertion he went over, at considerable length, the history of Congressional legislation on sanitary matters since the passage of the first act of that nature in 1796. This act directed the President of the United States to assist the State governments in the execution of the quarantine laws enacted by their respective Legislatures. This was followed at infrequent intervals by other similar laws, their execution, however, being intrusted to the Secretary of the Treasury instead of to the President. This was done because it was this department that was specially affected by the enforcement of quarantine.

In 1878 another advance was made whereby the Surgeon-General of the Marine Hospital Service was empowered to make rules for the Consuls in foreign ports with reference to the condition of vessels and cargoes bound for ports in the United States. During the same year still further advances were made by the appropriation of money to defray the expenses incurred in the investigation of the origin and causes of epidemic diseases, and by the establishing of State boards of health. A natural outcome of State boards was the National Board, the development and growth of which the speaker then traced to the time when it was established, March 3, 1879. The National Board of Health, he said, had a splendid record. Brought into being by the presence of an overwhelming calamity, it achieved a success that was the most remarkable in the history of hygiene, in converting Memphis from a pest-house into a healthy and flourishing city.

The marine hospital service was, he said, the most active and prominent among the functionaries of health under the direct rule of the National Government. One could not become familiar with its work without having a strong feeling of admiration for the care with which the service was administered. The management of the late epidemic of yellow fever was proof of the efficiency and value of this service. There was still another field of sanitary action, that of the consideration of animal diseases. In 1884 a bureau of animal industry was organized for the study of the contagious diseases of cattle and placed under the control of the Commissioner of Agriculture, who had been successful in arresting the spread of pleuro-pneumonia. The best results had been obtained by co-operation with State authorities. The speaker then reviewed the work of this branch of the Government.

The Government had shown willingness to advance in the great work of hygiene, but did not take the initiative. To illustrate this he cited the investigations of Sternberg and Frere and the doings of the International Conference and of the convention of Montgomery.

Taking up the question of regulation, he asked, Could a National Board of Health meet the requirements indicated in the exclusion of epidemics from our borders; their passage from State to State; the hygiene of cars; the drainage of swamps in malarial districts; the adulteration of food and the various other matters which would come within its province? The work would be too great for such a body. The Secretary of the Treasury was now obliged to make regulations through the Marine Hospital Service, which had no natural relation to the object for which the service was created. The service had its laboratories, and the army, navy and Bureau of Animal Industry theirs. These disconnected departments should be consolidated, and the solution of the question, he thought, must be found by the appointment by the Government of a single man who would give his undivided attention to this great subject. That man need not be a medical man, but he should be to his functionaries what the Secretary of War was to his. The control of all the bureaus of investigation should be under one head. The time had come when the health minister should be appointed. When the Government had consolidated these bureaus of investigation and hygiene it would be found that of all the men chosen by our chief magistrate to aid him in carrying on the functions of the Government, the Secretary of Sanitation would have the most arduous labors to perform.

In the afternoon, at the Section on Practice of Medicine, Materia Medica and Phy-

siology, about 150 members were in attendance.

Dr. John H. Musser, of Philadelphia, occupied the chair. In the absence of the Secretary, Dr. George Dock, of Galveston, Tex., was elected to fill that position. The Chairman called attention to the rules governing the proceedings of the section and proceeded to read his Annual Address. He began by alluding to the epidemic of influenza and its effect upon the profession and described the improvements made in all branches of medicine and the increase in time and knowledge which the modern methods of medicine require of physicians. He also called attention to the great advantage of trained nurses in private practice and approved the suggestion of the senior Dr. Gross of having training schools in small localities. He spoke in support of the continued study of old remedies and deprecated the aimless experimentation characteristic of the day. He thinks we should make a closer study of the individuality of the patients as affected by the new conditions resulting from the amalgamation of the races by the immense immigration of the times and the high pressure of modern civilization.

Dr. De Saussure, of Charleston, S. C., read an essay embodying the results of the clinical study of twenty-five cases of

Filaria Sanguinis Hominis.

The doctor showed the heart of a dog, an animal particularly favored by filaria, containing an innumerable amount of the parasites.

Dr. Lovering, of Ohio, called attention to the similarity existing between the symptoms of trichinosis and those of Dr. De Saussure's patients.

Dr. Kelly, of Baltimore, spoke of cases observed in Baltimore.

Dr. De Saussure, in closing the discussion, said he thought all cases found in the North had originally come from the South.

Several papers announced on the programme were not read, owing to the absence of the authors.

Dr. C. H. Shepherd, of Brooklyn, N. Y., read a paper on

Rheumatism and its Treatment by the Turkish Bath.

He strongly advocated the treatment, admitting that it could only be carried out in special institutions, and cited several cases showing the advantages of the method.

Drs. Ulrich, Didama and Bailey discussed the paper, combatting the ideas of the essayist from various standpoints.

Dr. J. W. Davis, of Smyrna, Tenn., read a paper on the

Use of Calomel in Some Forms of Dysentery.

It called forth an animated discussion, in which the following participated: Drs. Dawson, Ulrich, Woodhull, Sloan, Didama, Musser and Davis.

The section then adjourned to meet at 2.30 o'clock. The principal feature of the day's session was a discussion of the continued fevers of the South.

In the Section on Medical Jurisprudence nearly all the time of the session was taken up in the discussion of alcoholism in its legal relations.

The President, Dr. T. B. Evans, of Baltimore, opened with an address on

Responsibility in Dipsomania.

He said that, at the present period, when attention of the whole civilized world is directed to alcoholism it is right and proper that some expression should go forth from this body on the subject. It is hardly necessary to portray the consequences that follow the improper use of alcohol. It is somewhat singular that long ago some effort to restrain this great evil was not made, for evils of much less magnitude have received attention. He called attention to the baleful influences of alcohol, both on the votary and his descendants. The thirst that follows the use of alcohol shows that it causes the system to throw off water from the tissues. The brain has a great per cent. of water and is consequently more affected accordingly. As the nerve centres are most easily affected it is not difficult to imagine the permanent evil result. Every habitual drunkard arrives at a stage of chronic affection of the brain where we have a morally depraved and physically unsound man. The habitual drunkard is more or less insane. He cited authorities to support his theory. The position was taken that the dipsomaniac was an irresponsible being with no sunshine, no gladness, but one thought in his brain, the desire for alcohol; that supplants all things else. He claimed that the dipsomaniac should be as much exempt from responsibility as any other maniac. Chief

Justice Coke claimed that a drunkard was doubly guilty, and a recent decision of a learned judge upholds this theory. Decisions of this character are unjust. They belong to the dark ages. There are many incompetent judges and still more incompetent jurymen, and again the physician is incompetent to testify in insanity cases unless he has had a special training. The question is not one for a judge to decide without competent and unbiased evidence. He thought the time was approaching, as shown by the signs of the time, when the dipsomaniac should have justice. A man may not be responsible for acts while drunk. He may have been in an enfeebled condition when he took a drink and very little alcohol made him drunk. There must no longer be a contest between law and medicine. Dipsomania must be properly diagnosed and explained.

A paper by Dr. Norman Kerr, of London, on

The Need of a New Criminal Jurisprudence Affecting Inebriety,

was then read by Dr. Everts.

The paper cited that during the past twelve months there had been two death sentences, one passed on a French soldier for striking a superior officer, the other a man in England for killing a woman, when the parties were drunk at the time they committed the deeds, and it is a scandal to our justice. As to who is to say when a man is drunk it is a difficult problem, not only to the ordinary justice or policeman, but to the practitioner himself. It is difficult, because alcoholic symptoms or those not of alcohol are present at once, and police proceedings should be had with sufficient safeguards. Persons repeatedly before the police court for inebriety deserve attention. The man is confined in quarters often better than he is accustomed to, and deprived of drink. Then, after a short space of time, when he has recuperated sufficiently to commence drinking again, he is turned loose. The police court and work-house make up a school of inebriety. The wife and family of the inebriate are often terribly punished. The writer was strongly opposed to punishing a criminal for a crime when unconscious of his actions from alcoholic stimulants, though where a man got drunk to commit a crime, if such things were ever done, his drunkenness should be no excuse. Our criminal procedure in regard to crimes committed by persons under the influence of alcoholic drink should be radically reconstructed. He thought that the habits of a man's ancestors for at least two generations back should be considered in determining his guilt. From only one point of view—that of economy, because it is cheaper to hang a man than keep him—should our laws regarding neuchonology be reconstructed.

Dr. T. D. Crothers then read a paper on

Some New Medico-Legal Questions Relating to Inebriety.

He agreed with the position taken in the other papers. The present view of the law is not supported by science, and the time has come when we should free ourselves from the dogmas of the court-room. The medical expert has nothing to do with the law; he should study to determine and present the facts alone. As to how far the testimony of inebriates can be trusted as to what they see while in that condition, he cited six instances where drunken men, or men partially intoxicated, have testified in court. He thought this testimony should be received guardedly. Professional and scientific men soon recognize in themselves the evil effects of alcohol. The man thus impaired is in the first stages of paralysis. His senses are dulled; and in his testimony there are many circumstances to be considered. Cases were cited where men under the influence of liquor had confessed to having committed crimes with which they had nothing to do, and the conclusion reached was that the statements or impressions of the drunken man regarding himself is not competent unless sustained by collateral circumstances. The final consequences of alcoholism are caused by a disease that commenced with the first glass of alcohol. The brain of the inebriate and of the moderate drinker are both alike weakened. He did not think a man could plan a crime and then get drunk to commit it. The mental condition and circumstances and many other questions are to be considered in determination of a man's responsibility or irresponsibility.

Dr. N. S. Davis, of Chicago, Chairman of the Committee on Meteorology, read a report on the meteorologic conditions and their relations to the

Epidemic of Influenza

and some other diseases in Chicago during the

six months ending March 31. His paper was long and composed of carefully-compiled statistics and meteorological observations bearing on the epidemic, with concise statements of the symptoms of the disease. Much was in tabular form. Dr. Davis was of the opinion that had the people of Chicago known nothing of the influenza prevailing without, its appearance in Chicago would have occasioned no unusual remark. Similar cases appear annually and are called winter cholera.

In the Section on State Medicine, Dr. John B. Hamilton, Supervising Surgeon-General of the Marine Hospital Service of the United States, Chairman of the Section, read an address.

State Medicine and Hygiene.

He said the Marine Hospital Bureau had devoted the last year to increasing quarantine facilities for vessels, publishing a weekly abstract of sanitary reports and increasing the facilities for laboratory work. There are two laboratories. Among other interesting observations made were the experiments of Dr. Kinyoun on the value of cobra poison as a cure for cholera.

The recent act of Congress to prevent the introduction of contagious diseases from one State to another and for the punishment of certain offenses was quoted in full, and the case of the State Board of Tennessee interfering with Kentucky was cited as the only case yet tried. The necessity of a stricter supervision of immigrants was never more manifest than now. It was stated that Key West is in danger of becoming a centre for the dissemination of yellow fever. This arises from the plainest neglect of hygienic rules. The use of cesspools within the city limits, bad water, lack of drainage, etc., being cited.

The influenza epidemic was said to be one of the most wonderful phenomena of nature. Its rapid spread from St. Petersburg, Russia, in November, 1889, all over the world was unprecedented. The American legation is trying to ascertain the circumstances of its origin. It has invaded every country, from north to south, even animals being attacked. La nona was described and attributed to the same causes as influenza, being regarded as a combination of pneumonia and cerebro-spinal meningitis. Leprosy was spoken of at length. Strict segregation, entire separation of the sexes and rigid enforcement of the immigration law was recommended. Leprosy is only slightly contagious, but inoculable. The country will not suffer if leprous immigrants are denied admission.

Reports of Clinics.

NEW YORK POST-GRADUATE MEDICAL SCHOOL.

CLINIC FOR DISEASES OF CHILDREN.—PROF. J. H. RIPLEY.

Congenital Heart Disease.

This patient was a girl five and a half years old. The students were asked to note what seemed abnormal in her appearance. One suggested that she was micro-cephalic. The head was measured in its largest circumference (which is always over the occipital prominence) and found to measure nineteen inches. The head of a child of this age should measure about twenty inches. Dr. Ripley said her head was therefore small, but not pathologically so. There should be observed a distinction between an abnormally (unusually) small head and one whose diminution in size denoted disease. Had the circumference of the head in this girl been but seventeen inches, it would be regarded as a serious condition; as it was no special significance could be attributed to the size of the patient's head. It was taught by some authorities that the head did not increase in size after the sixth year. This Dr. Ripley believed to be erroneous; as all who wear hats could testify. It was true that the greatest growth of the head took place during the first year or fifteen months of life. After the sixth year the head continued to grow, but not very much. At this age its circumference was usually twenty-one inches, or a little over.

Attention was now directed to the cyanosis of the patient, which was very marked in the finger-tips, which were also club-shaped. This was really a very prominent symptom, and one of such importance that Dr. Ripley had each member of the class observe it closely. The causes of this condition occurring in a child of this age were then enumerated: 1. Chronic cardiac disease, whether congenital or acquired: and diseases involving the heart and great vessels. 2. Malformations of the large pulmonary blood-vessels.

3. Phthisis pulmonalis. 4. Rachitis. 5. Pleurisy with effusion: this being a most important cause, not *per se*, but in its consequences and amenability to treatment.

Proceeding to the history of the case, it was learned that the mother had had three children and no miscarriages; that the first child died when four days old, from what her physician told her was bronchitis; that the second child, the present patient, was born thirteen months later, and without medical assistance. For one hour the child lay in the bed, with the cord uncut, and giving no sign of life until the arrival of the physician, who, however, resuscitated the infant in a short time. The third child, the youngest, is healthy. When the patient was nine months old she had a "cold," which lasted but a few days. She never had diphtheria, scarlet fever, measles or chicken-pox, and had been vaccinated. Her bowels had been regular and her urine of usual quantity. The mother believed the child to have been perfectly healthy until twenty-seven months old, when, her face being somewhat swollen, she brought her to a physician, who told her the baby had heart disease.

The child is inclined to be listless, and never plays hard; yet she has never shown what the mother believed to be actual illness, though she has never had a hearty appetite.

Palpation and percussion showed the heart in normal position and not increased in size, with impulse rather weaker and more diffused than it should be. The arterial tension was low; the pulse, 90. A loud systolic murmur was heard over the cardiac region, with greatest intensity at the apex. The murmur was also heard behind, at the angle of the scapula. With the history of no acute sickness and the presence of this murmur, the conclusion was that the patient was suffering with congenital heart disease.

The different forms of congenital heart disease were given as follows:

1. Patent foramen ovale—a condition frequently cited and probably not so frequently present. It should be borne in mind that other conditions will produce the same train of symptoms. And as a matter of fact *post-mortem* examinations more often reveal other abnormalities in so-called cases of morbus ceruleus. And, on the other hand, it is frequently observed at the autopsies of infants that this foramen is still open, and yet the baby during life had shown no signs of heart trouble. Autopsies in cases of congenital heart disease are comparatively rare, however, and positive facts with reference to this condition cannot be well formulated.

2. Malformations of the valves of the heart; more seldom found, however, than

3. Malformations of the septa, and particularly of the auricular septum. These lesions are usually near the base of the heart, and this is explained by the fact that in fetal life the septa close from below upwards.

The causes of congenital heart disease were divided into

1. Arrest of development and abnormal development, and

2. Intrauterine inflammations.

A sufficient number of hearts of children at birth have been examined, showing recent fibrinous exudations, to prove that endocarditis can occur in fetal life; and it can well be believed that arrest of development may sometimes be due to a pre-existent inflammation, as would appear in many of the specimens seen in museums and described in medical literature.

That diseases are communicated directly from the mother to the fetus, everybody knows. Dr. Ripley, in this connection, referred to a child born while in convulsions, the mother at the time suffering from uremic eclampsia. The most frequent cause of abnormal development and arrest of development is undoubtedly syphilis, and the most frequent cause of inflammatory disease is uremia—nephritis in the mother.

The exact nature of the lesion in the case before the class was doubtful. Dr. Ripley did not consider the murmur to be produced by mitral regurgitation; it was too superficial and too diffused. Fortunately an incomplete diagnosis does not make the therapeutic indications less clear. The worst feature in this case was the cyanosis, the imperfect circulation; and therefore efforts should be directed towards toning up the heart. The child should have good food, fresh air and moderate exercise. Digitalis (principally) and the other heart tonics if digitalis disagreed, should be administered in sufficient dose and for a sufficient length of time to render the action of the heart at all times adequate to perform its work.

One cannot always obtain as clear a history as this case gives of absence of any post-natal disease that might be or might cause endo-

carditis. In a child six months of age with a similar condition of the heart, the probability is always strong that the disease is congenital; after this age it is often a most difficult thing to determine when the heart trouble began.

Foreign Correspondence.

LONDON LETTER.

Sir William Jenner.—Tuberculosis in Meat and Milk.—Hypnotism in Surgery.—Color-blindness and the Board of Trade.—The Telechrome.—Mr. Gladstone's head, and Bony Enlargements.—Zucci, the Faster.

Sir William Jenner has given up his lucrative practice and intends seeking retirement in the country. Few men have the resolution to take such a step until compelled by age or other incapacity, and this example might be more widely followed with advantage. It is only by retirement of the seniors that the subalterns get their chance of promotion. Sir William, moreover, withdrew from the harrassing work of a fashionable consultant, while still in full possession of his distinguished abilities. One is, therefore, glad to hear of his intention to gather together and re-edit the scientific and other papers scattered over many years of active life. His name appears in the register as a fellow of the Royal College of Physicians, 1852, thirty-eight years ago. During that period the world has witnessed many changes, both social and professional. Among the brilliant men of the century Jenner's name will be in the foremost rank.

A good deal of attention has of late been drawn to the question of the spread of tuberculosis through infected animals. As might be expected the meat dealers are up in arms. The question, however, is one that affects the national wealth too closely to be thwarted by the action of an interested class. The discovery of the tubercle bacillus, by Koch, has given sanitary reformers a firm basis for future operations. Who would have thought that the laboratory experiments of a German philosopher could have so profoundly affected the markets of the world within a few short years? It is but another weighty argument of the benefits conferred by science on the community. The cost of an iron-clad or an eighty-ton gun would suffice to keep a hundred simple, earnest men of science for a lifetime. Yet governments, which are ready to spend money like water over national defences, descend to driblets when scientific endowments are concerned. It is to the popular education that we must look hopefully for future action in these matters. Let the people once clearly grasp the fact that the butcher and the milkman may carry the seeds of consumption into their homes, and radical changes in those trades must quickly follow.

Hypnotism is engaging a good deal of attention in medical circles, and some of the journals seem inclined to take the matter up seriously. One may perhaps fairly doubt if enough use has hitherto been made of the undoubted influence of animal magnetism, or "mesmerism," as it was formerly called. A short while since, at Leeds, a number of leading medical men and dentists of the district, met together to witness surgical and dental operations performed upon subjects under hypnotic influence. In one case a woman of twenty-five was thrown into a slumber "at a word" from the hypnotizer and told to submit to have three teeth drawn by a dentist present, and at the same time to do everything required of her by the operator. While the teeth were being extracted there was no expression of pain on the face and the patient uttered no cry. When ordered to awake she declared she had no pain, and had felt none during the extraction. She was again hypnotized and ordered upstairs to the waiting-room, which she was reported to have done as a complete somnambulist. Another case was that of a girl, nineteen years old, who had already been treated painlessly under hypnotism for an abscess of the cheek. On this occasion sleep was induced by reading a brief order to that effect. The patient then submitted to a long operation during which sixteen stumps were removed, and awoke with a smiling declaration that she had experienced no pain. Other proceedings included removal of an exostosis from the great toe of a lad eight years old, and excision of tonsils in a highly sensitive girl, fifteen years old. One well-known surgeon present went so far as to say, "I feel sure that the time has now come when we shall have to recognize hypnotism as a necessary part of our study." In a letter of apology for non-attendance Dr. Clifford Allbutt says he remembered the

time, thirty-five years ago, when Liston performed serious operations, using hypnotism as the anæsthetic. After all this evidence, a full inquiry is certainly desirable, whether or not, as some enthusiasts maintain, hypnotism is destined at no distant date to supervene chloroform for many surgical purposes. Before that day arrives, however, it will have to be proved that every one can be "brought under" by suggestion as they are now by anæsthetic drugs.

Color-blindness and its proper testing has lately been much in evidence. It has been proved that year after year men who are color-blind have contrived to pass the Board of Trade's color tests, which are painted on card-board and sold for a few pence. After a little practice at a wool shop a candidate may learn to name the official test colors, namely, red, green and black. The subject has been discussed from one end to the other before the Society of Arts, and there can be no two opinions as to its important practical bearing. The color-blindness of officers on watch may account for many of those mysterious collisions at sea where the two vessels have been long in full sight of each other. Confusion of starboard and larboard lights means steering at random among no uncertain perils. The important practical suggestion has been advanced that all youths entering on a sea-faring life should be subjected to a stringent examination as to color-sense and other physical defects of vision. By this means the waste of valuable time entailed by a later discovery of incompetency would be avoided. The possibility of the color-blind educating themselves to pass a perfunctory test applies with even greater force to railway servants, who are allowed to present themselves several times for examination. An ingenious instrument has been lately invented for their especial benefit. It is called the "telechrome." The chief claims are, that it gives standard intensities; that lights are grouped in perspective, and that obscuring media are applicable to represent actual conditions of fog or mist.

The increase of size in Mr. Gladstone's hat has provided a fruitful theme for the journalists. Some time back the ex-premier confided to a friend the fact that he now found the head-gear of an official dress, that fitted perfectly a dozen years back, far too small for wear. Most of the pressmen seem to have jumped at the conclusion that the great stateman's brain must have taken on a sudden development in his old age. It is tolerably well established that the brain does not expand after two-score, so that in more scientific circles judgment on the point has been more cautious. Well-marked, general bony enlargements are rare, localized ones still more so, and any change in the skeleton of so prominent a figure in the world's history is hardly likely to have escaped observation. The real explanation is probably simple. As men get older they push their hats further down on their heads, presumably for the sake of warmth. Caricatures are generally founded on exact observation, and every one recognizes the truth of the picture of youth with hat perched on the top of the head, while age wears it reaching well down over eyebrows and nape of neck.

At the end of thirty days Zucci, the faster, seems in a bad way. He has lost in weight and spirit and taken to his bed. The manager of the Aquarium has received, so it is said, an unofficial intimation from the authorities that in the event of a fatal issue he will be held responsible. Were the misguided fasting man a pioneer he might be entitled to sympathy; as it is, he is looked upon, to use plain Saxon, as a misguided fool.

PERISCOPE.

Burn-Ulcer of Leg Treated by Grafting with the Skin of a Dog.

Mr. Alexander Miles, late Resident Surgeon, Royal Infirmary, Edinburgh, showed a patient to the members of the Edinburgh Medico-Chirurgical Society, Dec. 4, 1889, whose case is of interest from two points of view. On the one hand, because of the extreme frequency with which such cases are met in practice; and on the other, in view of the unusual means adopted for the relief of the patient. The case is described as follows in the *Lancet*, March 15, 1890:

W. A——, aged ten, a school-boy, was admitted to the Royal Infirmary, Edinburgh, under the care of Mr. A. G. Miller, on May 24, 1889, suffering from an extensive ulcer on his left leg, the result of a burn. On April 22 (a month before his admission), while playing on the top of a boiler used in the preparation of cow's food, he slipped, and his left leg was plunged into the boiling mixture as far as the knee. He at once withdrew it, and ran home, which was only a

short distance. His leg was found to have been scalded all round from the middle of the patella to the ankle, the foot having been protected by the boot which he wore. He was put to bed, and treated by his friends with various household remedies. On May 23, after a month of this treatment, he was seen for the first time by a doctor, who at once sent him to the hospital. On admission it was found that the whole of the skin of the leg, from the level of the middle of the patella to the ankle, with the exception of a small island on the front of the tibia, measuring two inches by half an inch, had been completely destroyed. The greater part of the resulting ulcer was covered with healthy granulations, but there were a few sloughs still unseparated. These were soon got rid of by means of boric-lint poultices, and at the end of a fortnight the whole surface was covered with healthy granulations, but there was not the slightest attempt at cicatrization. As a sufficient quantity of human skin to cover in the large area could not be obtained, it was suggested that the skin of some animal should be used. Accordingly, with the co-operation of the friends of the child, we obtained a young greyhound. The animal was seven days old, and in color was black and white. On June 6, about six weeks after the boy met with his accident, the grafting operations were commenced.

The puppy having been killed with chloroform, Mr. Miles closely shaved the whole of the anterior abdominal wall and flanks, and then dissected up the flap of skin thus mapped out. The whole thickness of the true skin was taken, leaving the subcutaneous fat. Meanwhile the leg had been thoroughly cleaned by the nurse, and all bleeding from the granulations arrested. The skin taken from the puppy was cut into strips measuring about six inches long by half an inch broad, and firmly pressed into the ulcer in the long axis of the limb. Smaller grafts about an inch square were used to fill in spaces left between the larger ones. A considerable area over the inner side of the knee still remained bare, and to cover it the skin from the pup's tail was dissected up, unshaved. The dressing consisted of small pieces of protective applied next the grafts, with the edges overlapping to facilitate removal, as well as the escape of discharge, and outside this a few layers of unprepared gauze moistened with weak boracic lotion; the whole dressing being kept moist by a layer of gutta-percha tissue. Over all a good layer of corrosive wool and a firm bandage were applied.

Subsequent notes.—June 9: Ulcer dressed to-day—three days after operation. One small graft had distinctly sloughed, and came away on the dressing, but the others all adherent. Cicatrization had already commenced round the margin of the ulcer, and also round the island of the skin in the centre.—June 11 (two days later): A stream of lotion could be run on the grafts without disturbing them. The island had, through the medium of some grafts, become joined to the lower margin of the ulcer. During the next fortnight healing went on rapidly. Some portions of the long strips sloughed, but the smaller grafts all did well. It was interesting to observe that the graft taken from the tail, which was not shaved, behaved exactly as sponge does, by promoting granulations. The hairs round the margins seemed to stimulate the granulations, which grew up on to the surface of the graft, and then spreading, completely swamped it. A few small grafts of human skin taken from a young boy were scattered here and there to fill up gaps still left. These all did well.—June 28: One or two spots still remaining were covered with pieces of frog's skin, but without exception these failed to take. The frog was an old one.—July 18 (six weeks after commencement of skin grafting operations): The ulcer was entirely healed. The patient was, however, kept in bed for a week or two longer, and then gradually began to use the limb.—March 10, 1890, over seven months since the patient was last under treatment, the leg was useful as ever it was. There was absolutely no contraction in the cicatrix, except where the tail skin was planted, and there it is very slight. The color of the skin is uniform and very similar to that of the normal skin. There was no evidence of any development of hair or of cutaneous secretions. The ordinary sensation was as good as in the other leg, and the temperature of both is the same.

There are three main factors upon which the success of such a case as this depends—(1) the general condition of the patient, (2) the condition of the ulcer, and (3) the means adopted to hasten the healing of the ulcer. The only favorable point in the general condition of the patient was his age. His general health was very much below par, and it is to this fact that we must ascribe the absence of any attempt at cicatrization

before the grafting was begun. As regards the condition of the ulcer, nothing could have been more satisfactory. It was a typical healthy, granulating surface. The success of this case was mainly due to the means adopted to cover in the sore. I am not prepared to say that the skin of the dog is better than that of other animals; but this animal can readily be obtained, and yields a sufficient amount of skin for most cases. The important point, however, is the age of the animal selected. In the first few days of extra-uterine life the creature grows very rapidly, and by grafting a large area of young tissue, with a potentially great developmental power, we quickly cover in the ulcerated area, and so prevent the contraction which invariably results after extensive burns when these are allowed to heal without artificial aid.

The Treatment of Chronic Diarrhœa.

Dr. H. F. Vickery, in an article on the treatment of chronic diarrhœa in the *Boston Med. and Surg. Journal*, February 20, 1890, says: The occurrence, during long periods, of frequent loose alvine evacuations is associated with many different diseases. Thus it may be due to a simple enteric catarrh, or to amyloid degeneration, or to dysenteric ulcers; it is frequent in pulmonary tuberculosis, even when the intestine presents no tubercular lesions; it may be referable to gastritis, malaria, leucocythemia, uremia, hepatic cirrhosis or heart disease.

It is evident, therefore, that our therapeutic efforts must often be directed to the fountain of evil itself rather than to the malodorous stream which flows from it. In many cases, however, the diarrhœa, although merely a symptom, demands direct treatment, and in yet others, to cure it is to cure the patient.

1. The diseased part should be given rest.

2. Any tendency to abnormal fermentation should be corrected.

3. No fecal accumulations should be permitted.

4. Pain is to be relieved.

1. Taking up these four indications in order, rest for the bowels means the ingestion of such kinds and amounts of food as will tax intestinal digestion least. Yet, it is not wise to go to the extreme of too little nourishment. Starvation works admirably in acute diarrhœa, but not in chronic. Tell your patients to take five or six meals a day, and at each meal as much as they crave of the kind of food permitted.

As to their diet. The intestinal tract in health is concerned in the digestion of all three of the cardinal elements of food—fats, starches and albumenoids—the last, least to be sure, but yet not so far below the others that meat-broths seem to me any better borne than gruels. Milk (aseptic) has proved excellent. Scraped raw beef is praised by many, although dread of tapeworms has deterred me from recommending it. Oily food is to be avoided.

As to consistence, nothing must be swallowed that can mechanically irritate the intestines; and liquids are better than solids. I allow any sort of liquid food that is smooth—beef-tea, broths, milk and gruel, made largely of milk, from any kind of grain, provided it is strained through a fine cloth before being taken.

With convalescence, the patient may regale himself on boiled rice, soft-boiled eggs, toasted bread, steak, mutton and potato, gradually and tentatively resuming ordinary diet.

2. The intestines in health swarm with bacteria, and the natural processes of intestinal digestion border close on putrefaction. Hence some antiseptic is almost always a useful ingredient in the prescription for a case of chronic diarrhœa. Subnitrate of bismuth probably acts to some extent in this way, besides soothing the mucous membrane. Michailoff, of St. Petersburg, has recently reported the cessation of a diarrhœa which had lasted thirty years under the employment of salicylate of bismuth. I have also used carbolic acid (one-half grain in each dose), beta-naphthol (one-half to one grain), or salol (two and one-half to five grains). Thymol has also been praised (two grains three times a day), but in the one case in which I tried it, it was suspected of causing headache, although the diarrhœa improved while it was being taken.

3. It is not merely in chronic dysentery that fecal masses may cause mischief. The subject of a chronic diarrhœa should have a daily evacuation of the bowels. The simplest way to do this is to go to stool at a certain time every twenty-four hours, and at that time, if necessary, to take an enema of cool water. In some instances I have incorporated rhubarb with the diarrhœal medicine. In others I have written a separate prescription for fluid extract of cascara sagrada, directing the patient to substitute this

for his other remedy if the bowels become sluggish; this seemed particularly valuable in cases of chronic intestinal catarrh, where a history of alternate diarrhœa and constipation was given.

4. Pain is a symptom of varying prominence in chronic diarrhœa. The preceding directions go far to remove it, if present; but at the start, it is often advisable to add five minims of deodorized tincture of opium or a drachm of paregoric to each dose of medicine, omitting it as soon as may be. Sometimes the bowels are lame, so that motion is painful. Sometimes changes of temperature affect the patient disastrously. For both these conditions a flannel swathe is useful. And in severe cases rest in bed is demanded. The various astringents, such as tannin, sulphate of copper, alum, liquor ferri nitratis, and nitrate of silver, I have used little.

Where the frequent dejection of small amounts of mucus and blood with tenesmus, indicates the predominance of colitis, rectal irrigations through a soft tube passed high up, are both rational and efficient. Two or three pints of simple cold water used in this way does good. In it can be dissolved sulphate of zinc or alum to the amount of one grain to every four to six ounces of water; or two grains of nitrate of silver to a pint, can be injected every one or two days, if allowed to come away at once.

Rotation of the Heart and Torsion of the Aorta.

Professor Schröther, in the *Wiener Klinische Wochenschrift*, No. 15, describes a remarkable condition of the arteries in the case of a man twenty-two years old with insufficiency of the aortic valves. While at the femoral, the dorsalis pedis, and posterior tibial, the pulse, in conformity with the aortic insufficiency, was fairly large, distinctly hurrying and murmuring, at both radials, in contrast, the pulse was small and failed to present the other two peculiarities. The patient died in consequence of a facial erysipelas, and at the autopsy the explanation of the manifestation was found in the position of the heart, which was rotated upon its axis towards the left. The aorta from its origin to a point beyond the arch was twisted in the same direction and to such a degree as to produce a partial angle and distortion at the orifices of the large vessels as they were given off to the upper portion of the body; these received an imperfect supply of blood, and in this way the striking difference between the pulse of the arteries of the upper half and that of those of the lower half of the body was occasioned. —*Deutsche med. Wochenschr.*, April 17, 1890.

A Syringe for Bacteriological Work.

In the *Münchener medicinische Wochenschrift*, March 25, 1890, there is described a syringe devised by Dr. E. Stroschein for use in making injections for purposes of bacteriological study. The requirements of such an instrument are its sure and speedy sterilization, which implies a resistance to the action of powerful bactericidal agents, such as corrosive sublimate and high degrees of heat. Over a graduated glass tube for the reception of the fluid to be injected, slides a second glass tube, closed at its upper extremity and so connected with the first by means of a short cylindrical piece of rubber tube that the compartment remains air-tight when the one is pushed over the other. As the smaller tube has a small opening at its upper end, sliding the larger back tends to produce a partial vacuum in both tubes, and any fluid in which the needle is immersed will be sucked up into the smaller. On the larger tube pushing forward the air in it and in the smaller tube is compressed, and the fluid will be injected. The instrument is simple in construction, and, excepting the metallic needle and the ring of rubber, consists entirely of glass. It is readily cleansed, convenient of manipulation, and inexpensive.

Statistics of the Grippe.

At the recent Sanitary Convention, at Norristown, Pa., Dr. Benjamin Lee, the Secretary, reported that he had sent letters to about 6,000 physicians, requesting answers to several questions relative to the pandemic of influenza. Replies were received from 265 physicians, who reported a total of 37,275 cases, of which 26,302 were adults, and 10,973 children; 6,917 were nervous in their characteristics; 16,434 were catarrhal, and 5,829 inflammatory; 56 deaths resulted directly from the influenza and 205 indirectly, 117 from pneumonia, 8 from bronchitis, 42 from phthisis, and 21 from nervous affections.

THE
MEDICAL AND SURGICAL
REPORTER.

ISSUED EVERY SATURDAY.

CHARLES W. DULLES, M.D.,
EDITOR AND PUBLISHER.

N. E. Cor. 13th and Walnut Streets,
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NEVER ROLL A MANUSCRIPT! Try to get an envelope or wrapper which will fit it.
When it is desired to call our attention to something in a newspaper, mark the passage boldly with a colored pencil, and write on the wrapper "Marked copy." Unless this is done, newspapers are not looked at.
The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

INVESTIGATION OF AN ALLEGED ABORTIONIST.

In another part of this number of the MEDICAL AND SURGICAL REPORTER we give the results of an investigation undertaken for the honor of the medical profession and the welfare of the community. A number of the subscribers of the REPORTER have complained of the injury done in Easton, Pa., by the suspicion that a regularly registered practitioner in that city was what is commonly known as an abortionist.

In the hope that this suspicion might prove unfounded, but with the belief that to make public the actual facts of the case would be doing a service to our brethren in the medical profession and to our fellow-citizens, an investigation was undertaken, and we give, without comment, its disclosures to the readers of this journal.

Nothing, we believe, is more likely to put a stop to a wrong than to bring it to the notice of the public in plain terms; and we shall always be ready to turn the light of the columns of the REPORTER on any evil which is properly a subject for investigation or comment by a medical journal.

THE JEFFERSON MEDICAL COLLEGE A THREE YEARS' SCHOOL.

The sixty-sixth Annual Announcement of the Jefferson Medical College calls attention to the fact that, with the Session beginning October 1, 1890, this well-known School joins the ranks of those which require three full courses of actual study from their students. As now arranged, the courses will be graded and will last six months and a half, from October 1 to April 15.

The inauguration of this change will be hailed with pleasure by all the friends of higher medical education, and will be a source of special gratification to the friends of the Jefferson College. The Faculty will look to the Alumni for earnest support in carrying out the principles which the College has adopted; and it is to be hoped that they will exert themselves to show that such a step meets the approval of all who have at heart the best interests of the College. Every medical school which has left the old two course plan behind and advanced to the position of requiring three courses of study has found that there are some difficulties connected with it, and in one lamentable case—that of the Bellevue Hospital Medical College — these difficulties frightened a strong institution into retreat and abandonment of what it had undertaken.

We have no idea that this can happen to the Jefferson College; but we think it right to call the attention of the readers of the REPORTER—many of whom are Jefferson graduates—to the fact that now is the time to show their love for their Alma Mater, by standing strongly by her when she needs and deserves the support of every one of them.

SPEECH FOR THE DEAF.

It is, perhaps, not generally known by parents of deaf children throughout Pennsylvania, that a boarding-school has been recently established in Scranton, Pa., to teach the deaf to speak and develop them mentally through lip-reading, where all classes of deaf children—those born deaf as well as those less afflicted—residing in Pennsylvania are admitted free. Oral teaching for the deaf, the system which in all countries but this is gradually supplanting all others, has its most complete application in this State in the Pennsylvania Oral School for the Deaf at Scranton. It is encouraging to know that the exhibit of this school at the Paris Exhibition of 1889 received a silver medal. This recognition is of the more consequence, as France, the country in which the sign language originated, has abolished its teachings and conducts the entire training of the deaf on the oral system.

This institution is under the care of Miss Emma Garrett, who has had long experience in teaching deaf mutes, and whose skill, patience and faithfulness in the work make her peculiarly well fitted for it.

We call the attention of physicians in Pennsylvania to the school at Scranton, in the hope that they may be able to spread a knowledge of the advantages it offers, without charge, to a most unfortunate class in the community.

STATE BOARD OF MEDICAL EXAMINERS AND THEIR EXAMINATIONS.

The REPORTER has repeatedly urged the importance of establishing in each State Boards of Medical Examiners to examine candidates before permitting them to practice medicine. It believes such boards to be for the highest interests of both practitioners and the public. By their operation it is hoped that worthy candidates may secure an honorable admission to the ranks of the medical profession, it is expected that unworthy candidates will be rejected and prevented from imposing upon the community. Under the present system of medical education, the Faculty which the student pays for his tuition practically decides whether he shall be admitted to practice or not; and just as long as this system exists, just so long will there be a temptation to inferior schools, desirous of patronage, to look too leniently upon defects which would seem serious in the eyes of an impartial tribunal. Owing in some cases to difficulties hard to overcome and sometimes to culpable disregard of right, the grade of instruction furnished at certain medical schools is of a decidedly inadequate character, while that of some of the higher class differs widely in its extent and comprehensiveness. And yet, apart from the supervision of State Boards of Medical Examiners, a graduate of the meanest institution in the land has in most States just as good a right, before the law, to undertake the responsibilities of the medical profession as the graduate of the most thorough educational establishment.

To correct the obvious disadvantages of such a state of affairs Boards of Medical Examiners have been created in several States, and we trust that other States will soon follow their good example. This experiment has, we believe, so far justified itself thoroughly; and yet from time to time complaint arises in regard to the way in which it operates in certain individual cases. One ground of complaint has been the asserted severity of the examinations. The *Southern Medical Record* recently referred to a charge that one of the State Boards "put before the applicants for license an array of questions that would have rejected almost any man who had been in the actual practice of his profession for any length of time."

If this accusation was brought by one of the men who gave such answers as we have recently cited for the information of the readers of the REPORTER, we need not wonder at or waste much time in considering it.

Still, it may be proper to advert to the fact that there is always some danger that examiners—especially if not practiced in examining—may err in attaching too much importance to failure in answering questions of a purely theoretical character, or that they may sometimes ask questions which are rather medical riddles than tests of fitness to discharge the duties of the physician.

It is with the utmost devotion to the principle of State Medical Examining Boards that we call attention to this point—not because we believe it has been actually overlooked, but because we would not seem indifferent to a feeling which may have some ground beside the natural chagrin of rejected candidates for license to practice, and because we would like all the State Examining Boards to be as near perfect as is possible.

ARISTOL FOR EPITHELIOMA.

The European Journals are beginning to contain a good many communications in regard to the action of aristol, which was described in the REPORTER, April 26, 1890. One of the most interesting and most recent is that by Dr. Brocq, in the *Bul. et Mem. de la Soc. Méd. des Hôpitaux*, May 1, 1890. Dr. Brocq presented to the Society a patient who had suffered for a long time with an intractable ulcerating epithelioma in the face. He had had this epithelioma since 1878, a period of about twelve years, and in that time it had progressed from bad to worse in spite of every effort that had been made to restrict its advances. When Dr. Brocq first saw the patient, he thought that nothing but a surgical operation could be of any use, and sent him to Dr. Championnière, who sent him back, stating that nothing could be done for him. Out of mere pity, Dr. Brocq then took him into the hospital and began treating him. He used concentrated solution of chlorate of potash; then powdered potash; and then, on account of the painfulness of these applications, he used an ointment of resorcin with one-tenth part of chlorate of potash. He then curetted superficially the edge of the ulcer; and in this way obtained a slight amelioration, but nothing satisfactory.

After this he decided to try the effect of aristol, which he had recently used with satisfactory results in another case. He made the first application on April 5. The result was almost immediate. In five or six days cicatrization was going on with great rapidity. In order to facilitate the process Dr. Brocq scraped superficially the borders of the neoplasm, removing the characteristic pearls of epithelioma. On April 25, when the patient was presented to the Society, twenty days after the treatment had been begun, the ulcer was almost healed, and Dr. Brocq was very confident that within a very few days the whole would be closed up.

This result of the action of aristol seemed to Dr. Brocq very remarkable, and decidedly superior to that which is ordinarily secured by topical applications in superficial ulcerating epithelioma. Aristol has an advantage over chlorate of potash in being entirely painless.

Brocq makes a very important observation in regard to the action of aristol, due appreciation of which may prevent disappointment and unjust criticism of the substance. This is that it may be expected to do good in superficial ulcerations, but not in deep ones. It is not a cauterant, and has not such an affinity for diseased tissue as some other substances have in superficial ulcerations; it seems to have a very remarkable curative power, producing cicatrization more rapidly than anything else with which he is familiar. It has a value in other forms of ulceration than the epithelimatous; and the experience of our colleagues on the other side of the Atlantic indicates that aristol is well worthy of a trial in this country, and that it is probably an addition of real value to the armamentarium of the physician and surgeon.

Book Reviews.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the Reporter.]

INSOMNIA AND ITS THERAPEUTICS. By A. W. Macfarlane, M. D., Fellow of the Royal College of Physicians, Edinburgh, etc. 8vo, pp. xv, 366. London: H. K. Lewis, 1890.

The opening chapters of this interesting book are devoted to an explication of the physiology of sleep and to some general remarks on insomnia. The author discusses the phenomena of sleep and of its gradual onset, and its effects upon the body; he then refers briefly to the various theories as to its causation. None of these theories are regarded as satisfactory, but a moderate amount of anemia is looked upon as essential to sleep. Insomnia is defined as any interference with the depth or duration of sleep. The essentials to sleep are asserted to be sound, nervous structures, normal metabolism, adequate repose and rightly-adjusted work. Conditions which influence sleep, apart from sex and age, are temperament, habit, occupation, method of living, history (including hereditary tendency, etc.), season and climate. In successive chapters the author then treats of the insomnia depending upon affections of the nervous system, the alimentary canal, the liver, upon gout, affections of the circulatory and respiratory systems, febrile and general diseases, affections of the urinary system and of the insomnia peculiar to women. Each recognized cause of sleeplessness is treated separately, and appropriate treatment is given. The author is to be commended for suggesting a number of useful formulæ.

Dr. Macfarlane has an extremely helpful book on a subject already of very great interest and importance, and one which is bound to attract increased attention as each year sees the struggle for position and even for existence become more absorbing and exhausting. He who will have, must sacrifice something to attain, but a full knowledge of the ways in which insomnia is brought about and of the remedies at our command will enable the physician so to direct a patient's habits of life that the detriment to him from sleeplessness may be least.

ÉTUDES DE CLINIQUE INFANTILE; Syphilis héréditaire précoce; laryngite syphilitique; broncho-pneumonie par infection intestinal; prophylaxie de la rougeole et de la diphthérie a l'hospice des Enfants-Assistés. Par le Dr. Sevestre, Médicin de l'hospice des Enfants-Assistés. Avec figures dans la texte. Volume in 8vo, de 143 pages. Paris: Publication des *Progrès Médical*, 1889.

CLINICAL STUDIES OF INFANTILE DISEASES; Infantile hereditary syphilis, etc., in the Home for Assisted Children. By Dr. Sevestre, Physician to the Hospital for Poor Children. With illustrations. 8vo, pp. 143. Paris: Published by the *Progrès Médical*, 1889. Price, 3 francs.

By far the larger portion of this book is devoted to the study of infantile hereditary syphilis. The subject is dealt with clearly and extensively; the various manifestations of infantile congenital syphilis are discussed separately. The views of numerous eminent syphilographers are referred to, and the results of extensive clinical experience are given. Special attention is given to the laryngeal manifestations of infantile syphilis. The two concluding portions of the book, on a form of broncho-pneumonia, originating in an intestinal infection, and the prophylaxis of measles and diphtheria in the Home for Poor Children, are, properly, monographs on these subjects, and have no connection with the first part. Both, however, are well written. The book is illustrated with numerous clear cuts, and is well printed.

HOW TO EXAMINE FOR LIFE INSURANCE. By John M. Keating, M. D., President of the Association of Life Insurance Medical Directors. 8vo, pp. 211. Philadelphia: P. Blakiston, Son & Co., 1890.

The first part of this book is devoted to a statement of the nature of life insurance, the duties of the medical examiner and advice to him in conducting an examination of an applicant for life insurance. The methods to be pursued in examining the heart, lungs, liver, bowels, kidneys and nervous system are given concisely. The opinions of competent men in their special departments have been made use of by the author in compiling the book.

The second part of the book is made up of the printed instructions issued by the life insurance companies of this country to their medical examiners.

The book will be helpful to medical examiners, and we can recommend it to them.

Correspondence.

Diphtheria or Tonsillitis.

To the Editor.

Sir: In the Reporter for May 10, I see an Editorial on Follicular Tonsillitis, which discusses the diagnosis between it and diphtheria. The subject has been of great interest to me for some time as I have had so much tonsillitis in my practice for the last year. And why of so much interest? Because I find the old physicians and many of the young ones telling me every day that they have diphtheria, when I contend that it is not. I must say here that I saw two cases which perplexed me very much as to what it was, but I stuck to my diagnosis of tonsillitis. Is tonsillitis contagious? If not, then why did I have it going through a family? In some places it has only been seen in one member of the family, and again I find it in two or three and then stopping. We have no grayish membrane, but a yellowish-white tinge. The tongue is coated and the temperature ranges from 101° to 103°, the pulse from 120 to 140 in children, with headache and loss of appetite for a day or so. There is tenderness (externally) over the region of the tonsils, and often the glands of neck are swollen, at times to such an extent that it is hard to tell it from mumps. I have had some patients who, al-

though they were very sick, were out again in a few days. Diphtheria, in the first place, is very contagious, and if we see one case in practice we are very apt to find others, and some must be of the malignant type—not one, but many.

I have often heard other physicians say: "I can cure diphtheria;" and my thoughts were: "You think so, but, if the truth must be told, you did not have diphtheria to treat, but tonsillitis." Diphtheria is not a common disease and we do not see it every day. I hear of it now all around me and think it strange that others meet with the terrible disease and yet I do not see anything of it.

Ammoniated tincture of guaiacum will abort the symptoms of the disease I see, and the patients have all done well with simple washes, etc., and so I must say that I have my first case of diphtheria to see in my practice.

You speak of the friends wishing to know the nature of the disease. When I am uncertain, I tell them I believe it to be so and so, but it may develop into something else.

Yours truly,

DOCTOR.

Nona.

TO THE EDITOR.

Sir: Reading your Editorial of May 3, "Nona," explains a case I had, beginning April 19, when I was called to a child in convulsions which had lasted nearly an hour and a half, although the mother had used all ordinary family resources to cut them short.

The child, aged 4 years, had symptoms of "cold on the chest," for which the mother had been doctoring it for three days; but it had not been regarded as very sick. It had slept most of the time. On examination I found slight general broncho-pneumonia, high temperature, pulse 140, head retracted, eyes staring, pupils dilated and breathing stertorous. The child had passed urine and feces unconsciously.

In view of the fact that the child had already had all ordinary home treatment, I gave an inhalation of chloroform to relax the spasm and a hypodermic of tr. veratrum viride (Norwood's) gr. ii, and an enema containing 10 grains of chloral.

In an hour the pulse had fallen to 72; and as the child was able to swallow I prescribed:

℞ Tr. gelsemii . . . . . gtt. i
Potas. bromidi . . . . . gr. v
Potas. iodidi . . . . . gr. i
Syr. ipecac . . . . . gtt. v

M. Sig. To be taken every two hours until better; then every four hours.

In twelve hours the convulsions recurred and were treated as before. In seven days the child was convalescent.

The second case was a child eleven weeks old with broncho-pneumonia of both lungs. Meningitis developed on the fourth day, and the child died on the eighth day.

As this phenomena followed the *grippe* after an interval of about a month, as did the cases of nona reported in Germany, I feel that the same condition was present in my cases.

THEO. G. DAVIS, M. D.

Bridgeton, N. J.

Census of Hallucinations.

TO THE EDITOR.

Sir: May I ask for the publicity of your pages to aid me in procuring co-operation in a scientific investigation for which I am responsible? I refer to the Census of Hallucinations, which was begun several years ago by the "Society for Psychical Research," and of which the International Congress of Experimental Psychology at Paris, last summer, assumed the future responsibility, naming a committee in each country to carry on the work.

The object of the inquiry is two-fold: 1st, to get a mass of facts about hallucinations which may serve as a basis for a scientific study of these phenomena; and 2d, to ascertain approximately the proportion of persons who have had such experiences. Until the average frequency of hallucinations in the community is known, it can never be decided whether the so-called "veridical" hallucinations (visions or other "warnings" of the death, etc., of people at a distance) which are so frequently reported, are accidental coincidences or something more.

Some 8,000 or more persons in England, France and the United States have already returned answers to the question which heads the census sheets, and which runs as follows:

"Have you ever, when completely awake, had a vivid impression of seeing or being touched by a living being or inanimate object, or of hearing a voice; which impres-

sion, so far as you could discover, was not due to any external physical cause?"

The "Congress" hopes that at its next meeting, in England in 1892, as many as 50,000 answers may have been collected. It is obvious that for the purely statistical inquiry, the answer "No" is as important as the answer "Yes."

I have been appointed to superintend the Census in America, and I most earnestly bespeak the co-operation of any among your readers who may be actively interested in the subject. It is clear that very many volunteer canvassers will be needed to secure success. Each census blank contains instructions to the collector, and places for twenty-five names; and special blanks for the "Yes" cases are furnished in addition. I shall be most happy to supply these blanks to any one who will be good enough to make application for them to

Yours truly,

WM. JAMES.

Harvard University,
Cambridge, Mass.

NOTES AND COMMENTS.

Investigation of an Alleged Abortionist.

On May 8, 1890, a representative of the MEDICAL AND SURGICAL REPORTER had a number of communications, by letter and by personal interview, with Dr. Howard Fackenthal, of Easton, Pa., in regard to a proposition that Dr. Fackenthal should perform an abortion upon a young woman, said to be two months pregnant, no proper medical reason being assigned for the operation. Our representative opened the investigation by sending the following letter—which is now in our possession—to Dr. Fackenthal.

EASTON, PA., May 8th, 1890.

DR. HOWARD FACKENTHAL.

Dear Sir: I called upon you twice yesterday, but unfortunately found you out, and as I wish to be sure of you, I send this note. I have a most embarrassing case for you. A young lady friend of mine has become a victim of unfortunate circumstances at some one's hands and is now about 2 months with child. I regret to say that I am implicated to the extent that the lady's honor is in my hands, and I am naturally anxious to give her all that skill or money can afford to save her from disgrace.

In plain words she must be relieved of the child. Circumstances are such as to render any other step impossible. Can and will you do this for us? The lady is very strong and ready to submit to anything. Will, however, the operation be very painful or involve much danger? Finally, what will it cost me?

Neither the lady nor myself are from Easton, but an adjacent town. Social connections render it necessary that this matter should be kept from all ears. I therefore must rely upon your entire confidence. The lady is not here, but I can bring her if necessary, and will follow your advice entirely. Kindly send reply by messenger. I do not wish to be seen calling at your office so soon again, and must leave for home today. Yours truly,

W. CLARK.

P. S.—For obvious reasons, which you will readily understand, I would feel obliged if you would return me this letter.

To this Dr. Fackenthal replied in the following letter, of which we present a *facsimile:*

Dr. H. Fackenthal.
Office: Cor. Fifth and Northampton streets.
Residence: 38 South Fourth street.

EASTON, PA., May 8, 1890.

MR. W. CLARK.

Dear Sir: The same obvious reasons that make you want your letter returned make it necessary for me to *not* write—you can call upon me if you desire. I will be in from two to four or if you prefir you can fix another hour or even place. Confidence begets confidence. I return with this your letter, which is of course propper. Please destroy this also—your coming often would excite no coment if you are a stranger you would be taken for an agent or as from ten to thirty callers per day is a usual thing no one notices unless they call with ladies either younger or lovers. By seeing me you can learn what you want.

Your

H. FACKENTHAL.

P. S.—Please remember you are a perfect stranger to me—and transchent. I am permanent. H. F.

An interview with Dr. Fackenthal, lasting about an hour, followed, in the course of which our representative described the case of the imaginary person, said to be pregnant, and attributed to her the well-known symptoms and signs of early pregnancy. Dr. Fackenthal went quite fully over the whole subject, under the leading of our representative's questions, and assured him that he would do the operation; that it was not painful or more dangerous than an ordinary child-birth; that it required no cutting; that the woman would experience no result from it for about five days; and that immediately after it was performed she might go to a ball and dance the same evening. As to the effect upon the child, Dr. Fackenthal said that his operation did not kill it but blighted it "as a worm blights an apple and makes it mature more quickly and fall." He showed our representative the illustrations of the generative organs of woman in *Gray's Anatomy*,

and with their help explained the steps of his proposed operation. He also showed the instruments which he said he was in the habit of employing.

Our representative, in order to learn if Dr. Fackenthal made a regular practice of performing abortions, said to him: "Doctor, pardon me for asking it, but I don't want to think that I am entrusting the life of this woman to a novice who has never done this operation before." To this Dr. Fackenthal replied: "Oh, no, I have had considerable experience in cases of this kind. Diseases of women have always been my specialty; but I have gradually drifted into this work, and have helped out a great many people."

Dr. Fackenthal then showed our representative the instruments which he said he was in the habit of employing. One was a large return-current canula about one-third of an inch in diameter, with a screw tip at the proximal end for the attachment of a syringe. With this, he said, air or water could be injected into the womb. He showed also a heavy flexible uterine sound, which he said he sometimes used. A third instrument was a sound with a sliding scale with which to measure the depth of the cavity of the womb. In the operation, he said, the canula was to be pushed through the cervix, between the membranes and the wall of the womb, clear up to the fundus; a metal washer on the canula was then pressed up close to the cervix, and the instrument was swept round the membranes, forcibly tearing loose all connections between the mother and child. Occasionally, Dr. Fackenthal said, it was necessary to inject air into the womb, to accomplish this. He said that the membranes were not ruptured in his operation, and that its effect was not immediately perceived, but produced dislodgment of the fetus and the membranes at the end of about five days. In cases seen very early in pregnancy he said he used the sound described above, instead of the canula. He said that the instrument he showed was specially designed by him and made to order, in New York.

On being questioned as to where and how the operation he had agreed to perform at the suggestion of our representative, could be carried out, Dr. Fackenthal said that the young woman might be taken to almost any "whore-house" and stay; but that, since a fatal case had taken place in a hotel in Easton not long ago, the houses of prostitution in that place refused to have anything to do with them.

He proposed that the young woman whose case was being considered should come to Easton alone, or ostensibly so, and have the operation performed by him at his office. He said that, as its effects were not immediately perceptible, she could then return to her home for four or five days; then she should go to Philadelphia to some small hotel, where she and the representative of the REPORTER should register as man and wife, and Dr. Fackenthal would come as soon as he was notified that the labor had begun, and would see the woman through. He said no nurse would be needed. All the young woman would have to do would be to keep quiet for fully two weeks.

With a parting injunction to our representative that the operation should be performed as soon as possible, the interview closed.

It was followed by another letter from our representative to Dr. Fackenthal—of which we have a *fac-simile*—and one from Dr. Fackenthal to him—of which we have the original—which we do not think it necessary to publish just now.

Treatment of Hemorrhages.

In an article on the treatment of medical emergencies, in the *University Medical Magazine*, Jan., 1890, Dr. James Tyson, in referring to the treatment of hemorrhages, says that hemorrhages from the lungs, which are in the main confined to tubercular consumption, occur in two different stages of the disease, and have a very different significance. They may occur early, when the blood-vessels in the neighborhood of a tubercular infiltration, weakened by a tubercular deposit in their walls, yield to a distention from collateral hyperæmia. In such a case the hemorrhage is rarely large, and so far from being harmful is often a relief to a congestion producing dyspnœa and oppression. The greatest danger is the irritation and even inflammation which may be brought about by the presence of small coagula in the bronchioles and their insufflation into still pervious air vesicles. This danger escaped, the hemorrhage is harmless.

The second form of hemorrhage is much more serious. It occurs late in the disease and is due to ulceration through the coats of

a blood-vessel of considerable size, the vessel being either in the walls of a cavity or traversing it. Such a hemorrhage is dangerous and not infrequently fatal. Prompt measures are therefore to be taken to relieve it. The thorax should be kept raised and absolute quiet should be observed. This is further secured by a full dose of an opiate if it will be well borne by the patient. Of internal remedies the time-honored one of salt is of uncertain value, but in the absence of anything else may be swallowed in the dose of a teaspoonful, repeated in a few minutes if the hemorrhage continues. Gallic acid in 15-grain doses every ten or fifteen minutes is a more rational measure and should be substituted for the salt as soon as it can be obtained. Hypodermic injections of ergotin in doses of 5 to 10 grains in water may be given simultaneously, and should be repeated daily or twice daily where the tendency to hemorrhage continues. Their object is to bring about contraction in the blood-vessels. Other astringents, such as acetate of lead in 3-grain doses, may be used under the same circumstances, as it would not be safe to use this drug in any quantity sufficient to bring about an immediate effect. The application of cold over the bleeding site is especially recommended by German clinicians, but one must be sure first of the situation, which is not always easily ascertained. Cold should be applied in the shape of ice in bladders or rubber bags, so that the clothing shall not become damp, or of cloths wrung out in cold water. A more extreme measure, to be resorted to when others fail, is to throw a ligature around the larger limbs, cutting off the return of blood by the veins while the outflow through the arteries is still permitted. Such a course will withdraw blood from the lungs and lessen the tendency to hemorrhage.

Hemorrhage of the stomach and bowels occurs usually either in cirrhosis of the liver or in typhoid fever. When due to cirrhosis the hemorrhage is either from the stomach or upper part of the small intestine. When due to this cause it is more apt to be a capillary oozing, although sometimes quite copious. Under these circumstances blood is both vomited and discharged by the bowel. Such hemorrhages are also not infrequently a relief to the portal congestion. Often they may be permitted to subside of themselves. When treatment is required it is more promptly efficient than that for hemorrhage from the lungs, because more directly reached. Tannic acid may be given in 15-grain doses every 10 or 15 minutes, or at longer intervals according to circumstances. In the absence of this drug even alum may be used in the proportion of a teaspoonful to a glass of water and taken in four doses at short intervals. Hemorrhages from the lower bowel occur from typhoid fever and are much more dangerous. The immediate cause is ulceration through a blood-vessel of smaller or larger size. They are always regarded as a serious complication of typhoid fever, but recovery is still not infrequent. Serious symptoms are a reduction in temperature, loss of pulse and other signs of collapse.

Hemorrhages from the bowel are treated by absolute quiet, cold compresses, or ice bags to the abdomen, and the use of food the most bland and unirritating. Indeed the intervals between food should be made as long as possible. It is doubtful whether drugs administered by the mouth reach the seat of hemorrhage in typhoid fever, but tannic acid may be given as in hemorrhage from the stomach, large doses being very much more apt to enter the bowel.

Nasal hemorrhage frequently calls for the physician's aid. It occurs also in connection with typhoid fever and cirrhosis of the liver, but also in association with heart disease, and sometimes cannot be accounted for. The simplest measures for its relief are snuffing up cold water or solution of alum in water, a teaspoonful in eight ounces, injecting hot water into the nasal passages, and the use of ice externally. The dropping of a cold key down the back of the neck is a domestic remedy whose success is not without a rational explanation. The sudden impression of the cold key through a reflex action may cause a contraction of the blood-vessels and then the hemorrhage ceases. Plugging the nares with a Bellocq's canula or other means should be practiced when all else fails.

The checking of nasal hemorrhage, as indeed of all hemorrhage, is aided by keeping the patient quiet in bed, and sometimes when there is a tendency to recurrences it is necessary to keep him on his back for several days.

Hot Air Cure for Consumption.

We give below the summary of an interesting paper read by Wales L. Cary, M. D., Physician of the Brooklyn Throat Hospital,

before the Medical Society of the County of Kings, at its meeting in Brooklyn. A perusal of these conclusions to be drawn from the statements of the paper will convince any one that this so-called Dr. Louis Weigert method of hot-air cure for consumption is a snare and delusion, which may be very dangerous.

I. Comparative pathology and the natural history of pulmonary tuberculosis in man indicates that the most favorable temperature for the *intra-pulmonary* development of its bacillus is much higher than 99.5° F.

II. Tubercular bacilli, in a favorable soil within an animal organism, are not attenuated nor their development arrested by temperatures which are inimical to them in artificial or non-vitalized culture-media, but even rendered more virulent and more rapidly reproductive.

III. Temperatures demanded for effective disinfection or discontinuous sterilization by dry heat are impracticable and injurious to the animal organism.

IV. It would appear that Dr. Weigert is mistaken in supposing that the residual air is heated much above 113° F.; and that, in fact, there is but very slight, if any, elevation of the intra-pulmonary temperature. Recent advices from Germany inform us that accurate measurement of the actual elevation of the lung temperature is but from a half to one degree.

V. If it were possible to produce and maintain, even for a short time, an intra-pulmonary temperature approaching 113°, there would be produced, independent of the effect upon the lung-tissue, grave degenerative changes in the blood and entire cellular elements of the body.

VI. At temperatures far short of those claimed, there would be produced an auto-infection and accumulation of excrementitious products, by diminished respiratory capacity, directly deleterious to the organism at large, and indirectly embarrassing to those nutritive activities upon whose integrity all hope of permanent benefit to the consumptive must rest.

VII. The factor productive of the benefit arising from the Weigert method is the *dryness*, rather than the heat, of the inspired air; and this desiccating action cannot be obtained except the temperature of the inspired air be as low at the upper as in the deeper parts of the lung. Of further benefit are pulmonary gymnastics, the psychological effect, and possibly in some cases a favorable action upon the bacteria in the larger bronchi.—*American Analyst*, April 17, 1890.

Precautions against Trichinosis in Germany.

Professor Proust, director-general of the sanitary service of France, recently reported to the commission the following instance of the danger of trichinatous meat, and the severity with which infractions of the law in regard to it are punished in Germany. In the city of Breslau the official charged with the duty of destroying a hog known to be trichinatous, neglected his duty, and in the meantime the owner of the animal slaughtered it and sold some of the meat before the fact was detected by the authorities and the balance seized. Several of those who purchased the meat succumbed to trichinosis, and the authorities proceeded against the owner of the animal, his wife and the functionaries of the city. The first two were condemned to fifteen years of hard labor and ten years' additional loss of civil rights and to perpetual surveillance of the police. The burgomeister was fined 60 marks and deposed. A circular was issued and sent to all provincial magistrates calling attention to the affair, and imposing on them the necessity of the keenest watchfulness against a possible recurrence of a similar affair. In the United States the owner of the meat would have sued the authorities for the meat that was seized, and for damages for interfering with his enterprise.—*National Druggist*, March 15, 1890.

Afraid of Leprosy.

A communication from the California State Board of Health was read at the recent Sanitary Convention at Norristown, Pa., urging legislation to prevent the importation of cases of leprosy or of persons specially liable to develop the disease. The communication was followed by a resolution of the American Public Health Association urging that all quarantine officials, to prevent the introduction of leprosy, exercise the same vigilance as they do in reference to yellow fever or cholera.

Secretary Lee announced that the Surgeon-General of the Marine Hospital Service had ordered that cases of leprosy arriving in the United States must be quarantined and returned.

NEWS.

—Dr. W. H. Byford, one of the most prominent physicians in Chicago, died May 21 of heart trouble.

—Cerebro-spinal meningitis is reported as prevailing to an alarming extent among horses in Kentucky.

—The Connecticut State Medical Society will hold its annual meeting in New Haven, May 28, 29 and 30, 1890.

—The State Medical Society of Pennsylvania will hold its fortieth annual session in Pittsburgh, June 10–13, 1890.

—A polyclinic, or medical institute, similar to the polyclinic at Vienna and Berlin, has been opened in Paris.

—The College of Medicine of Southern California held its annual commencement on April 16, 1890, and graduated a class of 7.

—The thirty-seventh annual session of the North Carolina Medical Society was held at Oxford, N. C., May 27, 28 and 29, 1890.

—Plans have been approved for the first of a series of buildings for the Pennsylvania Institution for the Deaf and Dumb at Mount Airy, Philadelphia.

—The French Minister of Marine has absolutely prohibited the medical officers of the navy from practicing hypnotism "under any pretext whatever."

—Dr. F. N. Otis has been appointed Professor Emeritus of Genito-Urinary and Venereal Diseases at the College of Physicians and Surgeons, New York.

—The attendance at the forthcoming International Congress at Berlin, this summer, is estimated to exceed five thousand, and special arrangements will be made in consequence.

—Joseph Hill, colored, who pleaded guilty to a charge of practicing medicine without being registered as a physician, was sentenced in Philadelphia, May 19, to six months' imprisonment.

—Dr. Holmes Judd died in Alton, Illinois, May 20, aged 70 years. He was the founder of the St. Louis Dental College, and, at the time of his death, President of the Illinois State Dental Association.

—There is a leper isolated in the City Hospital of Evansville, Ind. The patient is a man twenty-five years old and states he has had the disease for fifteen years. He has passed his life in several States, but has never been outside of America. The disease is of the tuberculo-anæsthetic form.

—A committee, consisting of Professors Moleschott, Corradi, Cocconi, Guareschi, and Vitali, and Signori De Cesaris and Tacconis, Doctors of Pharmacy, which was charged some time ago with the revision of the Italian Pharmacopœia, has almost completed its task. The revision has occupied twelve years.

—A young doctor of Vienna recently offended a Croatian girl, nineteen years old, and refused to apologize for his conduct. The girl thereupon challenged him to a duel, and on May 21 the pair fought in a room which had been hired for the purpose. The girl, who was educated in South America, and who is a splendid fencer, twice wounded the doctor, herself escaping unscathed.

—On May 19, the United States Supreme Court rendered an opinion holding to be unconstitutional the law of Minnesota requiring that all fresh meats sold in the State "shall be cut from animals slaughtered within the State and inspected 24 hours before slaughter." The case is entitled "State of Minnesota against Henry D. Barber," and is of great interest to dressed beef men, who win the case.

—Lieutenant-Colonel Charles A. Aden and Major John S. Billings, surgeons, have been ordered to proceed to Berlin, Germany, as delegates to the International Medical Congress. Major Billings is also ordered to visit afterwards, on official business, such points in Great Britain, France, Italy, Germany, Belgium, Holland and elsewhere as may be deemed necessary by the Surgeon-General of the Army.

OBITUARY.

DR. DANIEL P. MOYER.

Dr. Daniel P. Moyer, a very able and prominent physician of Bucks county, died at his residence in Doylestown, on Sunday evening, May 11. Dr. Moyer was born in Montgomery county in 1847, and was graduated from the University of Pennsylvania in 1872. Immediately after graduating he located at Dublin, in Bucks county, and soon, by his ability and exemplary character, built up a very extensive practice. Finding his health failing, he relinquished his practice here and moved to Doylestown this spring. Dr. Moyer's death was due to a severe attack of typhoid fever. He left a wife and four children to mourn his demise.

A. F. Myers.

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CLINICAL LECTURE.

QUINSY. — PERICARDITIS COMPLICATING CHRONIC BRIGHT'S DISEASE.—EXHAUSTION FROM EXPOSURE AND CARDIAC DISEASE.[1]

BY JAMES TYSON, M. D.,

LATE PHYSICIAN TO THE PHILADELPHIA HOSPITAL; PROFESSOR OF CLINICAL MEDICINE, UNIVERSITY OF PENNSYLVANIA.

Quinsy.

Gentlemen: The first disease I have to illustrate this morning is a very simple one, and yet one of great practical importance. The case is one of ordinary tonsillitis, or quinsy. The man's history is simple. He had his feet wet on November 27. The next day he was seized with a mild chill, and his throat on both sides became swollen and tender. He experienced great difficulty in eating and swallowing, and there was even at first obstruction in breathing. He had no chill after the initial one. This is the typical history of tonsillitis, a disease most easy of diagnosis.

It is with especial reference to the treatment, therefore, that I bring him before you, for I know of no simple disease in the treatment of which one may be more embarrassed than this.

Tonsillitis is an inflammation of the tonsil glands, usually terminating in suppuration. It is also called quinsy, although this term is sometimes restricted to the suppurating form. The most important question to decide, when called to a case of tonsillitis, is whether it is going to gather immediately, because the decision must influence the treatment. It is, however, a question not always easy to answer, and to say whether we shall use remedies to prevent suppuration, or to favor it. Very often for three or four days we will

[1] Delivered at the Philadelphia Hospital.

use means to prevent suppuration, only to see an abscess form in spite of what has been done. Again, at times, it is exceedingly difficult to know whether pus has actually formed. The duration of the disease is so uncertain under any circumstances that it is well to make an exceedingly guarded prognosis, telling the patient that ten days may elapse before a culmination is reached. While the prognosis is almost invariably ultimately favorable, it has happened that, in consequence of an involvement of both tonsils, the patient has been suffocated; and cases, though rare, have occurred where the sudden breaking of a tonsil abscess has caused death from suffocation.

Now as regards treatment. If we see the patient very soon after the chill it is reasonable to expect that antiphlogistic measures may cut the inflammation short. Among the best means for this purpose are pieces of ice placed in the mouth more or less constantly, and in addition to this, ice bags to the angle of the jaw. It may be desirable to satisfy the patient to use gargles, but I doubt whether they are useful. It is also doubtful whether the usual astringent solutions, such as silver nitrate, tannic acid and the like, are of value; but they may be used in the early stages. More efficient as a curative measure, and also useful to diminish tension and allay pain, is scarification. This may be followed by the local application of a four per cent. solution of cocaine, or a spray of the same, thrown into the throat, or cocaine may be used independent of scarification.

But are there any symptoms by which to determine a change of treatment from the antiphlogistic to that favoring suppuration? The recognition of fluctuation, of course; but this is not always easy. We may aid ourselves in this by putting the finger under the angle of the jaw, and pressing on the tonsil, and then, with another finger inside, make the touch. Sometimes it is difficult to get the mouth open wide enough to do this, but patience will generally accomplish it. Not infrequently the sense of fluctuation is obtained, and the bistoury plunged into the tonsil without result. It has happened that the internal carotid artery has been wounded in cutting a tonsil abscess, and it is accordingly recommended that the bistoury be guarded. But it takes a pretty deep cut to cause this accident. In other cases fluctuation is very evident, and not a very deep incision will bring out the pus, while scarification paves the way for the tonsil to relieve itself, as often happens.

A person having tonsillitis once is apt to have other attacks; and some people have quinsy every year. In the patient before us we have been able to abort the disease. Both tonsils were scarified, relieving the hyperemia, and the case has gone on to resolution. Usually four or five days limits the duration of a case of tonsillitis, but, as already mentioned, it may run on to ten days, and hence it is well to prepare the patient accordingly.

Pericarditis Complicating Chronic Bright's Disease.

I next present a patient who has Bright's disease, of what particular form does not concern us at present. But there is associated with it a complication quite common to this affection, namely, pericarditis. The patient is also almost blind from the presence of an albuminuric retinitis.

Pericarditis is secondary mainly to two diseases, acute rheumatism and Bright's disease. It also occurs in connection with pneumonia and pleurisy and with septic conditions, such as puerperal fever. Why this condition is favored by Bright's disease is not certainly known, nor do we certainly know how it is caused by rheumatism; but it is supposed that the poison, whatever it may be, which circulating with the blood causes rheumatism, acts also to produce the pericardial inflammation, which is favored by the friction of the surfaces. So the effete matters which soon accumulate in the blood in Bright's disease, are supposed to act similarly. In every case of Bright's disease, and of rheumatism, therefore, we should constantly examine the heart with a view to the recognition of this condition, and thus, while studying this case, we discovered a friction sound. These sounds are often of a very fleeting character, and will disappear in the course of a day. It was present yesterday; I will see if it be still here. It is still audible, but it is much less distinct than it was. It is a very low, soft rubbing, and has lost its "to and fro" character. It is not easy always to recognize a pericardial friction sound. The difficulty here would be even greater if we had not had the opportunity of recognizing it at a time when it was more distinct. There are several characteristics by which we distinguish it from cardiac murmurs; and yet it is often

mistaken for a valvular murmur, and *vice versa*. A characteristic friction sound, in the first place, is a to and fro sound, and while double in one sense, is not double like a double valvular murmur, as it has not the same relation to the systole and diastole. Secondly, it is a more superficial sound than a valvular murmur. Thirdly—although this is not constantly the case—it is apt to change its situation with a change in the position of the patient, the heart rolling from one side to the other. Fourthly, the character of the sounds are different. A friction sound is never blowing, whistling or piping, as is the valvular murmur, but when the valvular murmur approaches a soft, rubbing character, the resemblance is closer. A friction sound may be crepitating or creaking at times, depending upon the firmness of the lymph which is the cause of it.

Pericarditis is an inflammation of the pericardium with an exudation of lymph in the first stage, producing a roughness on the two surfaces of the pericardium, whence the friction sound. As this lymph is soft and gelatinous, or hard and rough, it gives a difference in the character of the sound. Very often our diagnosis of pericarditis is confirmed by the onset of the second stage, namely, the effusion of serum with a corresponding increase in the area of the heart's dulness; a dulness which is apt to be conical in shape. This dulness at first is associated with the friction sound. The obtuse apex of this dulness may be high up under the clavicle, while the point of highest dulness in health is at the fourth rib. In this case the dulness does not mount very high. It reaches only the third interspace. I am free to judge, therefore, that there is no pericardial effusion here. In order to settle the question further, I will look for the apex beat, and I find it most distinct in the line of the nipple, and below—outside of the normal position; this is due to a slight hypertrophy which is here present. Nor is there a trace of dulness at the apex.

Where a pericardial effusion exists, there is generally dyspnœa. The action of the heart becomes irregular and embarrassed. During the early stage of pericarditis, outside of the physical symptoms, very often there is nothing distinctive. The pain of the inflammation is very much less than in pleurisy, although the membranes are the same. There is pain and discomfort, however, to a certain extent. There is sometimes an associated pleurisy, and, it is claimed by some, that pain when present is due to this complication.

As regards treatment, the first thing to do is to put a blister over the heart at once, and follow this, or associate it, with measures to regulate the heart, such as digitalis. A blister in pericarditis gives excellent results. Almost immediately the patient becomes comfortable, the dyspnœa passes away and the physical signs disappear. We may prevent an effusion by its use. In rheumatic cases we should treat for the rheumatism as well, and similarly in Bright's disease. These cases almost always need stimulants.

These measures are, as a rule, efficient. Very rarely does a patient die from the effects of pericarditis. Sometimes it happens that the effusion increases to such an extent that unless prompt action is taken the patient will perish. Paracentesis of the pericardium must then be done in the fifth interspace, one inch to the left of the sternum, to avoid the artery which runs along the edge of the sternum. When there is pus in the pericardium it is absolutely necessary to tap, and a drainage-tube may even be inserted into the sac. Adhesion often takes place as the case recovers, the two surfaces becoming united as the effusion is removed. Complete adhesion is not favored by the constant movement of the heart, and bands of adhesion are therefore often seen. At times, however, the pericardial sac is fused into the visceral layer. In such cases with every beat of the heart one or more interspaces are drawn in, and this aids us in making the diagnosis of adhesions.

Exhaustion from Exposure and Cardiac Disease.

The third case I show you is an old man who says he is 102 years old; but I fear he is not correct as regards this. He is unable to talk our language, and I can get no history. When admitted on Saturday last, he was almost pulseless. Hot-water bags were placed to his feet. He had dropsy of the legs to a very positive degree. Listening over his heart, we found it very irregular, but could make out no murmur. We examined his urine and found it loaded with albumin. We concluded, therefore, that there was Bright's disease. This is a case which will demonstrate the value of comfort, warmth and rest. On Monday we examined his urine and found no albumin. His heart had steadied somewhat, but was still irregular.

To-day we recognized a systolic murmur. The heart, although much more regular than it was, is still very feeble. I wished to show you him particularly to illustrate the value of warmth and rest. The dropsy and albuminurea have disappeared, and the heart has become stronger, and I have no doubt the man will be about again. The necessity of caution in prognosis is also thus shown.

COMMUNICATIONS.

THE DIFFERENTIAL DIAGNOSIS AND TREATMENT OF THE CONTINUED FEVERS OF THE SOUTHERN STATES.[1]

BY B. F. HUMPHREYS, M. D.,

HAWKINS, TEXAS.

The monograph of Dr. W. W. Johnston "On the Geographical Distribution of Typhoid Fever in the United States—its relation to Fevers of Malarial Origin and to Obscure and Unclassified Forms of Continued Fevers," is a valuable contribution to this subject, inasmuch as it is a collective investigation reflecting the opinion of three hundred and fifty reputable physicians, chiefly Southern practitioners, whose views, for the most part, are based upon clinical experience. Although there seems to be much confusion, apparently due to a diversity of opinions existing in regard to the nature, classification and nomenclature of this group of fevers, there are, nevertheless, in these brief historical sketches, the outlines of the prevailing types of the continued fevers, indigenous to the Southern States.

Having elsewhere discussed this topic somewhat at length,[2] it seems unnecessary at present to enter into a long study of the nature, differential diagnosis and treatment of these fevers. But a *résumé* of some of the leading aspects which pertain to this subject may be of interest at this time. The geological conformation, latitude, climate and other characteristics of the Southern States, especially those bordering on the Gulf and Atlantic and those lying in the southern portion of the great valley of the Mississippi, naturally incline to the propagation of the continued fevers peculiar to these States. These fevers differ so materially from those which have long been recognized under a special nomenclature that has been almost universally adopted, it must be evident to all that the unclassified forms of these continued fevers, concerning which there has been so much misunderstanding, should receive the consideration which the importance of the subject seems to demand, by giving to each an individualized distinction and cognomen, or by referring them, as suggested by Prof. W. W. Johnston, to typhoid fever or to adynamic malarial fever.

Much confusion has existed in relation to the true nature of these continued fevers, which is probably due, in a measure at least, on the one hand to incorrect methods of investigation, and, on the other, to a proneness to classify them under a universally recognized nomenclature which is in no wise suited to the character of a fever, entitled perhaps to an individualized distinction. This is probably true as regards a certain type of continued fever prevalent in these States, which, for want of a more appropriate name, had frequently been designated under the neologistic term of "Typho-Malarial" fever, thereby usually nullifying the diagnosis and of necessity increasing the confusion.

The result of this seems to be, that any fever presenting symptoms resembling typhoid on the one hand and malarial fever on the other has usually been termed typho-malarial fever by the advocates of that theory. The diagnosis is therefore frequently made without observing the special restrictions necessary to justify such a classification—if, indeed, the term is worthy of further recognition and continuance. If so, then it must be conceded that it should be used only in the restricted sense the author of the term finally proposed that it might be applied: to those fevers which result from the combined influence of the causes of malarious fever and of typhoid fever.

The late Dr. Samuel M. Bemiss, in his monograph on typho-malarial fever, in *Pepper's System of Medicine*, while expressing the belief that the term might possibly be a convenient addition to medical nomenclature, insists upon restricting its use "to define a disease compounded of the two pathological factors, which when acting sep-

[1] Read before the American Medical Association, Nashville, Tenn., May 21, 1890.

[2] *Nashville Journal of Med. and Surg.*, March, June and December, 1885; March, June, July and September, 1886; *Therapeutic Gazette*, September, 1888; *Texas Courier-Record of Medicine*, February, 1889.

arately produce either typhoid or malarial fever." Professor Edward G. Janeway, as is well known, has also said that he did not believe it possible to admit the use of the term in any other sense than that adopted by Professor Flint in his *Practice of Medicine*, namely, as indicating the symptoms of malarial empoisonment to those of typhoid fever, with the effect of rendering the course of the disease peculiar, and he thinks it would have been wiser altogether to dispense with the term, and, under the head of typhoid fever, consider the malarial poison as capable of producing a considerable variation in the ordinary course of the disease.

Dr. Janeway's views, with reference to the irregularity which characterizes the use of the term (typho-malarial) are strongly corroborative of the opinions long held by Professor Robert Bartholow, who, from the first, as all the world knows, has opposed the adoption of this term in our nomenclature. Both of these distinguished clinicians have shown that the fever of typhoid is remittent in character, with a gradual rise during the first week of its course; that this same remittent character is seen in the latter part of the course of many typhoid cases; and that the occurrence of sepsis in the course of a typhoid fever will also produce an *apparent* malarial or *remitting* character to the fever. Reviewing his large clinical experience in New York City, Dr. Janeway assures us that it has happened extremely rarely that in a person dead of typhoid fever, evidences have been found at the autopsy proving the existence of malarial empoisonment.

It may be observed in reference to the restrictions implied and expressed in the use of the term typho-malarial, that the infrequency of typhoid fever in Southern latitudes, especially in the rural districts and in malarious regions, is a well-known fact which seems to controvert the probability, and even the possibility of the existence of so many cases which are diagnosticated typho-malarial fever, for the typhoid factor evidently is not present as frequently; and, if it were, it could not perhaps be as far diverted from its wonted course by any complication having the power to prevent the manifestation of the positive and recognized symptoms and lesions by which the disease is diagnosticated without reference to any complications. As I have elsewhere observed, it yet remains to be proven that the difference sometimes observed in the appearance of the ulcers in Peyer's patches is due, as has been claimed, to the combined operation of the malarial and the typhoid poison, producing a special character of ulcers pathognomonic of typho-malarial fever, so-called. If any such evidence could be uniformly produced from subjects who die of this fever, and if it could be demonstrated that the intestinal lesions differ from the *plaques molles*, or the *plaques dures* of typhoid, then the morbid anatomy might be regarded as affording some proof of a distinct or special type of fever, and thus furnish the basis for the differential diagnosis between it and typhoid fever. Until this is done, however, the characteristic intestinal lesions and other symptoms of enteric fever must still be regarded as the old and correct landmarks of typhoid fever, whatever complications may intervene.

The typhoid fever of this State, as generally seen, seems to be divested of many of its characteristic symptoms; wherefore it has been claimed by many of our physicians who have seen the disease as manifested in the more northern latitudes, that there is no true typhoid fever in this State. The fever termed "typhoid" possesses some of the characteristic symptoms —enough to justify the diagnosis. There is in this fever rarely the pronounced delirium common to it in higher latitudes; there is, however, a pseudo-somnolence, with a clouded mind; there are manifest symptoms of tenderness, pain and gurgling in the right iliac region; tympanitis; occasionally intestinal hemorrhage, and even perforation; the eruption of rose-colored spots is not constant; usually there is diarrhœa, but it does not seem to me that it is as characteristic as it is in the classic type of the disease. The fever, as generally seen here, might be termed a typical typhoid.

The excellent contribution of Dr. R. D. Maury, of Memphis, Tennessee, on "Malarial Continued Fever" (*American Journal of the Medical Sciences*, April, 1881), is an accurate pen-picture of a common type of continued fever which prevails in the Southern region of the Mississippi Valley. It is also quite prevalent in a large portion of this State, and probably to some extent throughout the southern portion of the United States. This is the form of continued fever, more than any other, perhaps, which has been termed typho-malarial, without any sufficient reasons for such an application of the term.

The symptoms of this fever, as detailed elsewhere, do not justify the use of the term, for they are very like those of typhoid fever, —in fact, there is rarely, if ever, a typical symptom present. In this type of continued fever, the cerebral symptoms alone seem quite sufficient to make a differential diagnosis between it and typhoid fever. The mind of the patient, as a rule, is unclouded, he being rather alert than otherwise. The patient manifests much anxiety and concern with reference to his condition; notes the arrival and departure of visitors, with whom he converses cheerfully much of the time, and not infrequently he desires to read a book or paper, especially during the morning hours. He rarely, if ever, has any of those illusions peculiar to typhoid fever.

But there are other points of difference between these fevers, which are worthy of note. There is in continued malarial fever a conspicuous absence of the characteristic symptoms of typhoid fever, and in their place is the unmistakable evidence of malarial empoisonment; although not so pronounced as in malarial remittents, it is nevertheless easily recognized. Periodicity here, as in other forms of malarial fever, is plainly manifested in the diurnal cold stage, which is invariably followed by an elevation of temperature. The cold stage may amount to a chill or rigor, but usually there is nothing more than a slight coolness of the feet and hands, the tip of the nose and the ears, the patient either covering himself more closely or calling for additional clothing. In other cases the cold stage is not so easily recognized. The morning temperature in mild cases is usually 101° to 102° F., in the evening 102° to 103½° F. In violent attacks, which are due probably to sepsis, the morning temperature ranges from 103° to 104° F., the evening pyrexia may be 105° or 106° F. Generally, however, the temperature does not exceed 104° F. There is usually a defervescence of the fever about the end of the third week, although it may continue much longer, generally terminating at or near a septenary period. The long-continued cases usually present adynamic symptoms.

As observed by Dr. Maury, "this fever presents a stadium of increase of about one week, a stadium of height of five or six days, and a stadium of decrease which terminates completely on the twenty-first day. . . . Constipation and a concave abdomen are marked features. All the essential features of typhoid or enteric fever are absent. No diarrhœa, no ilio-local tenderness or gurgling, no meteorism, no eruption of rose-colored spots. . . . It begins, continues and ends as a continued fever. . . . Its duration is no way affected by the exhibition of antiperiodic medicines."

In view of the foregoing facts and outlines, it seems strange indeed that any one would apply to this fever such a term as typhoid-malarial. There is not, in fact, even a shadow on which to base the diagnosis of typhoid.

But in the typical forms of typhoid fever, which are also common to the Southern States, the possibility of making an erroneous diagnosis is even greater than in the other forms of continued fever. The atypical forms of typhoid in tropical and subtropical regions—although not so common as the adynamic type of malarial fever already referred to—may mislead us in the diagnosis; for here there are some symptoms of typhoid on the one hand and a resemblance of malaria on the other; but a rigid and cautious investigation will enable us to establish a correct diagnosis even in the presence of complications. Quain observes that in India cases of enteric fever have been, and are, mistaken for malarial intermittent. He says: "There are cases of a mixed nature in which a thread of malaria, so to speak, runs through the symptoms and obscures them;" and, further, that "the term typho-malarial has come into use there to distinguish these cases." From which it appears that the symptoms of enteric fever there, as in other regions with similar environments, may be obscured by "a thread of malaria," thereby producing some variation of the ordinary course of a typhoid fever, as Professors Bartholow and Janeway have already observed. But it does not appear that the adoption of the term typho-malarial in India has helped them out of their confusion or that it has enabled them to avoid the mistakes to which the distinguished lexicographer refers. Indeed it seems that the term there, as elsewhere, only adds to the existing confusion. Dr. Johnston, in his paper already referred to, very truly observes: "As at present employed, the term typho-malarial has no determined meaning, leads to confusion and misunderstanding, is a cover for uncertainty and ignorance and should be discouraged and abandoned."

It may be observed in this connection that some of the most distinguished clini-

cians of other countries have also investigated this subject somewhat carefully. Dr. Edward Squire, of London, has given us an interesting and unique monograph, from his standpoint, relating to this topic. (*American Journal of the Medical Sciences*, April, 1887.) Dr. Squire, it may be remarked, was a medical officer in the British Army at Suakim, on the Red Sea, during the recent English campaign in Egypt, "where seemingly occurred the same forms of malarial disease that are met with elsewhere," as Dr. H. K. Leake has observed in an editorial review of the above paper (*Texas Courier-Record of Medicine*, July, 1887). To Dr. Squire's large clinical experience, in London and the English army, is added his collective investigation on this subject, contributed by many of the most eminent physicians of the English realm, including medical officers of the army and navy. Having reviewed the individual expressions and opinions of this reputable class of physicians, in connection with his own observations, Dr. Squire gives expression to the opinion held by the Commissioner of Inquiry concerning the disease as it prevailed in the United States army during the war between the States—resulting in the conclusion that the so-called typho-malarial fever was "bilious remittent fever, which, having not been controlled in the primary stage, had assumed that adynamic type which is present in enteric fever," from which Dr. Squire formulates the following definitions: "Typho-malarial fever is a malarial fever which has assumed that adynamic type which is present in enteric fever." He says the medical officers of the army support him in this definition; although Fleet Surgeon Norbury, while admitting that the symptoms of enteric fever may be modified by malaria, says: "The so-called typho-malarial fever is simply enteric fever and nothing else." From which it may be inferred that the cases which came under the observation of Surgeon Norbury were probably atypical forms of typhoid fever not very unlike those, observed elsewhere and designated as typho-malarial fever. But admitting that such cases should properly be referred to the typhoid group, the definition of Surgeon Norbury is not one of universal applicability, for it cannot include a large class of continued fevers of tropical and sub-tropical latitudes, where they are so frequently and erroneously classed as typho-malarial, without the enteric pathology noted by Norbury. To this latter class of fevers, Dr. Squire's definition seems applicable.

Simple continued fever, as commonly observed in this State, is a fever of more gravity and of longer duration than is ascribed to this form of fever in the text-books on practical medicine. It is a fever of a mild and negative character, without any of the special symptoms of typhoid or malarial fever and its course cannot be abridged by specific (quinine) treatment. It may not continue longer than from twelve to fourteen days, but sometimes it lasts longer—from eighteen or twenty to forty days, or even more. More frequently than otherwise, the fever subsides by the end of the second or third week. I have occasionally seen cases of this fever continue forty days, and, during all that time, the patient never went to bed, except at intervals during the day to rest himself. Usually, however, the subjects of this fever are unable to leave their beds, where a portion of the time is spent in conversation with visitors, and occasionally half an hour in light reading. The temperature rarely exceeds 103½° or 104° F., and much of the time it ranges between 101° and 102½° F. There is no distinctly marked periodicity or other characteristic evidence of malarial empoisonment. Usually it occurs during the heated summer season, or later on, just after a long, dry, hot summer, during which there has been very little manifestation of malarial fevers. Indeed it has seemed to me that in this fever, or in the graver forms of it at least, there is a striking resemblance to that type of fever designated as "thermic," so graphically described by Professor Horatio C. Wood and Professor John Guitéras, formerly of the United States Marine Hospital Service. As observed elsewhere, the pathogenesis of this type of fever is imperfectly understood, but it seems quite probable that the long-continued and excessive heat of tropical latitudes and adjacent regions may be capable of producing, not only in feeble and over-worked persons, but possibly in some constitutions apparently robust, a depression, exhaustion or more or less pronounced paresis of the inhibitory apparatus of the heat functions, thereby impairing the normal equilibrium between heat production and heat dissipation.

Dr. Maclagan in the Clinical Society of London (*Lancet*, March 31, 1888) maintained "that the metabolism of the tissues is interfered with through the nervous sys-

tem, there being a kind of paralysis of the inhibition which normally keeps the tissue changes within bounds, and that the resistance or inhibition of the heat-centres being removed, hyperpyrexia results." These expressions of opinion seem to be in accord with the theory of thermic fever, so ably maintained by Drs. Wood and Guitéras.

In view of the fact that the inherent tendency of the physiological functions is to resist any extraneous influence that may be capable of perverting the intrinsic or natural order and harmony essential to the "eternal fitness of things," it follows, as a matter of course, that the same cause, acting against greater resistance, may produce a fever of less intensity and continuity—one having a comparatively mild pyrexia—which is, indeed, the usual character of this type of fever. At least, such is its nature as manifested in this latitude.

Treatment seems to have but little, if any influence on the natural course of this type of fever, and about all that is necessary is to render the patient as comfortable as possible, administering such remedies as may be indicated, and cautiously avoiding unnecessary drugging, which interferes with the well-being of the patient. When the fever produces much discomfort and restlessness, a suitable dose of antipyrin or phenacetin, or some other mild sedative and antipyretic, may be given and repeated as often as necessary. To support the failing strength, a nutritious, easily-assimilated diet—not altogether nor always liquid—is our main reliance. Diuretics and aperients seem useful. Wine, brandy and other alcoholic stimulants appear to be beneficial in many of these cases, especially if supplemented with tonic doses of quinine, which seems to be useful in sustaining the capillary circulation. Two or three grains of quinine, every four hours, may be given to an adult with apparent benefit. Insomnia is sometimes troublesome. This is relieved by means of chloral, bromidia, sulphonal, or an opiate—the two first having the preference.

The diagnosis of any type of continued fever is seldom made and confirmed until the fever has run on in the even tenor of its way for several days or a week, unchecked by the repeated and persistent exhibition of antiperiodic remedies. By this time, if not sooner, we are driven to the conclusion, albeit reluctantly, that we have a special type of continued fever to deal with, instead of a mild, abortive remittent, as we had at first supposed and hoped. The first administration of quinine, in daily antiperiodic doses, with the view of checking the natural course of the fever, seems to be not only useless but positively detrimental to the well-being of the patient, and proves to be "a disturbing element," as Dr. Maury has truly remarked.

I have recently observed in reference to "The Use and Abuse of the New Antipyretics" (*Texas Courier-Record of Medicine*, April, 1890), it is not at all probable that any of these new antipyretics will ever supplant quinine—the old reliable antipyretic and antiperiodic in malarial fevers. By this I do not mean to say that quinine is a rival of the modern antipyretics; for it is not. But all of us, I suppose, have seen low forms of malarial remittent fever in which the vital powers were so overwhelmed with the effects of the disease, that we would not dare to administer antipyretics or depressing medicaments of any kind; for we have learned by experience, if not by precept, that nothing except quinine to cinchonism will relieve such patients, thereby demonstrating in such conditions its unrivalled properties as not only an antiperiodic, but a special and safe antipyretic as well.

As to the treatment of continued malarial fever, it may be remarked that the remedies usually administered in simple remittent fever, or quinine at least, will probably have been given before the physician is called. If such remedies have not been properly administered, they should be resorted to at once and fairly tested, with the view of arresting the fever, if possible; for it is widely believed that simple remittent fever not infrequently assumes a continued character through neglect or inefficient treatment at the outset; and careful observations seem to confirm this opinion. After these preliminary remedies, the treatment outlined for simple continued fever will usually prove satisfactory.

In the graver forms of the disease, dangerous symptoms are to be treated as they arise. The hepatic, digestive, renal and cutaneous functions require constant attention—never over-stimulating them and never permitting them to become suspended for any considerable length of time, which would evidently intensify and prolong the fever beyond its natural course and duration. All nervous disturbances should receive prompt attention. Here antipyrin and phenacetin seem to be exceedingly

useful. Hyperpyrexia, if due to sepsis, calls for antiseptic remedies. The hyposulphite of soda, eucalyptus, baptisia and "Bartholow's mixture" are all apparently useful in this condition. In some cases the hyperpyrexia seems to be the result of accumulated and intensified malarial influence. When this is the case, moderate cinchonism appears to be quite beneficial, reducing the temperature to a degree of tolerance and safety.

Much depends upon the proper nourishment of the patient, for, if this be neglected, medical treatment, however rational, will most probably prove a failure, as the fever will continue far beyond its natural duration, or the patient will succumb to the combined influence of the fever and inanition.

THE FEEDING OF INFANTS.[1]

BY HENRY L. COIT, M. D.,

NEWARK, N. J.

The unretarded growth of the infant during the first year of its independent life is beset with difficulties which hitherto have well-nigh baffled the efforts of physicians. Of the four thousand deaths occurring in Newark, N. J., last year, more than twenty-five per cent. were of children under the age of one year; being about one-fifth of all who were born.

This enormous mortality, which exceeds that of any other period of life, is suggestive of sad defects in our knowledge of the means for the care and protection of the young. These facts are a greater reflection upon our intelligence, when we consider that among none of the lower mammals do we find the young dying in such large numbers.

In the mind of the profession at large there is a wide diversity of opinion concerning the methods to be employed in the dietic management of children at this early period of life. So vague and contrary are the views held on this subject, that even scientific observers, who agree on other points, are at variance in regard to it.

We find, also, that the subject of infant feeding is viewed from different standpoints, not only by physicians, but by the chemist, the dairyman, and the mother; and it is not strange, therefore, that the physician should find himself in conflict with one or another of these, who, by reason of their limited knowledge, fail to apprehend the truths which lie beyond the range of their immediate vision.

This general want of agreement on a question of such vital importance, is a sufficient warrant for any attempt to harmonize the discordant elements; and also for any effort to establish a more rational basis for our methods.

Nature has provided a food for the first year of human life, in the normal secretion of the mother's breast; and in a manner which renders it impossible to improve either the food or the method of feeding. It is perfect in its composition, digestibility and temperature; and if it is true that nature makes no mistakes, except as we pervert her laws and turn aside her efforts in wrong channels, then it would follow, that where physical health exists in the mother, the lacteal secretion will always agree with her child, and conduce to the most perfect development.

In studying the composition of woman's milk, it is important to bear in mind some of the principles of nutrition. Bodily growth or repair in the adult seems to maintain an even balance with the destructive waste of oxidation; with advancing age this equilibrium is lost, because of weakened assimilation, and consequent mal-nutrition. In the infant, on the other hand, an entirely different state of things exists: here we find a maximum of activity in the digestive and assimilative functions, with a minimum of waste, so that we have increased and rapid development.

In woman's milk are found all the elements of the more highly organized vegetable and animal foods: the proteids, which are the casein and albumin; the carbohydrates, which are supplied in the lactose; the fats, which are the most complicated constituents of milk; the mineral salts and water. In estimating the relative importance of these principles it is well to know that the dynamic value, which is manifested through nerve force and involuntary vital action, is generated from the proteids and fats; that the calorific properties, which regulate the thermal units of the body, reside in and result from the decomposition of the carbohydrates; and that the albuminoids also are supposed to have an intimate relation to the formation of adipose tissue.

Many chemists have undertaken the analy-

[1] Read at a meeting of The Practitioners' Club, Newark, N. J.

sis of human milk, and there are many differences in their results; the subject is one around which there are many difficulties, especially in the determination of the albuminoids and fats. Dr. Arthur V. Meigs, of Philadelphia, has written a long monograph defending the statement that woman's milk contains only about one per cent. of casein, whereas Professor Leeds finds a much higher percentage, namely, from two to three. Foreign chemists have generally reported from three to five per cent. of these principles. These differences are probably due to the imperfect methods of determination. I am of the opinion that casein in woman's milk is not a constant quantity during the whole period of lactation, and I am supported in this view by the experimental observations of Simon, who, after making many exhaustive analyses of woman's milk at different periods of lactation, concludes: first, that the quantity of casein is at its minimum at the commencement; it then rises considerably and ultimately attains a fixed proportion in the later part of lactation. My own observations have led me to believe that since the proteids are important factors in the early development of the child, nature provides these compounds in a proportion exactly suited to the peptic power of the child's stomach; just as the full digestive capacity is supplied with other constituents of the food. In this connection I would call attention to the fact that several years ago Dr. Henry A. Mott, of New York, during the analysis of many samples of milk from Caucasian and African women, found that in the latter the albuminoids were uniformly in excess, and in this respect as well as in the other features of specific gravity, color and general appearance, resembled cow's milk.

In fat principles the average woman's milk is not widely different from cow's milk, containing as it does about four per cent. of fat, which, however, consists chiefly of the more stable fatty compounds, namely, olein, palmatin and stearin; together with these are found a very small percentage of the volatile fatty compounds, among which are butyrin, caproin, etc. This minimum of volatile fats in human milk is due to a mixed diet, whereas milk of the lower animals, which are exclusively herbivorous, yield a lower percentage of the unstable and deleterious principles, which accounts for the distinctly acid reaction of such milk.

In woman's milk we find a much higher percentage of carbohydrates than is found in that of the lower animals, except perhaps the mare or goat. Chemists are generally agreed that seven per cent. represents the average quantity, which is reasonably constant. This principle, lactose, being a sugar of animal origin, has some distinctive properties. In the stomach a portion of it is readily changed into lactic acid, which plays an important part in the digestion of the albuminoids; this is well to remember when we have to use sugar in a food mixture. Unlike cane sugar, milk sugar does not readily take on the alcoholic or the butyric fermentation. Of the mineral salts and water nothing need be said except that both are necessary to the building of the tissues, and, being inorganic compounds, are not liable to change.

It would seem unnecessary to defend this common food for infants; and yet we are forced to do this by the fact that a large proportion of the mothers of to-day are either unable or unwilling to nourish their young. Among the causes which have determined this unfortunate condition of the race are, the injurious effects of modern social life, and a desire to escape responsibility and trouble; yet it is safe to assume that this deplorable state of things would not exist, at least not to so great an extent, had not the confidence of the public and a large part of the profession, been established in the numerous manufactured substitutes for mother's milk. The nursing-bottle was once unknown, and that within the recollection of most of those who now use them. Until within a few years this expedient was regarded simply as an economical substitute for the foster-mother; but now both she and the natural mother are relegated to other fields of action.

In judging of the merits or demerits of substitute foods, new combinations of which are brought daily to our doors, it might be well to lay down a principle to guide us, namely: Any food for infants under one year old, that departs in constitution from the character and proportion of proximate elements found in woman's milk, is not only to be regarded with suspicion, but discarded as likely to be detrimental to the child, and will in all probability defeat the purposes of nutrition.

We are indebted to Dr. T. M. Rotch, of Boston, for an exhaustive treatise on manufactured infant foods, in his valuable article on infant feeding in Keating's encyclopædia.

Here we are told that almost every manufacturer has made claims which he cannot substantiate, and after a careful and impartial study of their analyses we find in them all, without exception, faults, either in the percentage of essential ingredients, or in the addition of foreign substances which were never designed for the infant's stomach. The apparent success of some of these preparations has been due in part to advertising; but largely, I think, to a general misapprehension of the causes of failure with cow's milk. It is a common practice when cow's milk does not agree on the first trial, to resort at once to a patent mixture, and then in the event of failure, to change from one to another in sheer despair, until finally the infant, if not already dead, is imperfectly nourished and enters childhood with weakened digestive powers.

Cow's milk has been used as a substitute for mother's milk from the time when it first became necessary to nourish infants by hand. That this substance is the one best adapted to our purpose is conceded by all but a remnant of the profession, and yet the fact that very many physicians recommend patented mixtures is evidence that in resorting to these expedients they have not intelligently studied the relations of cow's milk to the infant's digestion.

In order best to understand the causes of failure, we will consider the comparative composition of woman's and cow's milk. The gross quantitative analysis will teach us much in this direction. The total solids are about the same in each, namely, twelve per cent., so that the difference lies in the unequal proportions of the same ingredients. The following table of percentages will show approximately how average cow's milk may be brought by synthetical adjustment to correspond to woman's milk:

Woman's Milk.		Cow's Milk.	
Casein	2	Casein	4
Milk Fat	4	Milk Fat	4
Milk Sugar	7	Milk Sugar	4
Water and Salts	87	Water and Salts	88

Modified Cow's Milk.

Cow's Milk + equal bulk spring water	= 2	Casein 2 Milk Fat 2 Milk Sugar 2 Water 94

If to half of this we add

Milk Fat 2 Milk Sugar 5	we will obtain almost exactly	Casein Milk Fat Milk Sugar Water and Salts	2 4 7 87

We find then that cow's milk contains twice as much casein as woman's milk, and on the other hand woman's milk contains nearly twice as much sugar as cow's milk, the fat being about the same in each. Judging from these differences, it is apparent that ill success with the latter milk is largely due to our failure to adjust the disproportion in its several constituents.

The sources of cow's milk, and the dangers through which it passes in being brought to us, are divisions of this subject too large to be fully treated in this paper. Strict sanitary control of the milk supply will be necessary before we shall remove these sources of danger, and before we may hope to improve the present defective dairy-farming.

Among the disadvantages in the use of cow's milk are its contaminations. First, we have the transmitted foreign matters, such as the tubercle bacillus, which, according to Ernst, may be brought to us from cows which have no localized tubercular deposits in the udder; notwithstanding the fact that absence of local disease has been supposed by Koch and others to render the milk inocuous. This fact alone would justify the sterilization of all milk given to infants. Then we find the bacteria which determine the various fermentations and the putrefaction of milk, which are inevitable in all milk that is exposed to the air, and only await the favorable external conditions to spoil it. We have also the typhoid bacillus, found in milk which has been carried in containers washed with contaminated well water. There are also, in much of the cow's milk, abnormal constituents in the excess of volatile fatty compounds, which are easily changed into acids; chief among these is caproic acid, which is produced, together with other volatile acids of the fatty series, by the oxidation of albuminous substances used for food. We find beside these, various chemicals which are added for commercial purposes, such as the nitrates, used to destroy the garlicky odor of a turnip diet, and which produces in milk a chemical compound isomeric with nitroglycerin. Water is the least dangerous of all injurious additions, unless it be added indirectly, by feeding cows so as to increase their thirst and consequently their milking capacity. Milk so watered has a low specific gravity and carries with it deleterious principles.

Poisonous substances are found in milk which has been improperly handled; of these tyrotoxicon is best known, being described by Vaughan. It is a poisonous ptomaine

occurring in milk which has been allowed to stand long in an excessively acid condition. There is, no doubt, some causative relation between the improper feeding of cows and this poison. If a diet rich in albumin and devoid of starch (beer-grains) produces an increase in the fatty acids, and by the development of "bacillus proteus" rapid putrefactive changes are determined, it is highly probable that poisonous ptomaines would be produced.

There are small dairies in the suburbs of the larger towns and cities, where an almost exclusive diet of beer-grains is used, and the milk thus produced is sold to small consumers. The present low price paid by middlemen to the producer, namely, one and a half to two cents per quart, renders it imperative that the latter should find cheap food for his cattle, that which will determine the largest output of milk. Thus, resource is had to brewery waste, cheap roots, etc., instead of the solid grains of feed, with clover and timothy hay for fodder.

Beer-grain is, perhaps, more generally used than any other of the cheap foods. If the dairy district happens to be at a distance from a brewery, some of the farmers store it in earth cellars for the winter; this storage is begun in June when the price reaches the low figure of three dollars per ton. Being a waste by-product in the manufacture of ale and beer, it consists chiefly of the gluten of the barley, with its cellulose. The seventy per cent. of starch, sugar, dextrin, etc., have been removed, leaving nothing of a nutritive value but the thirteen per cent. of proteids. It is wet when sold, easily undergoes fermentation, and is often given to cows in this condition. Town dairymen obtain it fresh, but this advantage is offset by the larger quantities used. It is the testimony of the better class of dairymen that the feeding of this refuse destroys the cows' digestion in about seven years, and renders them unfit for further milking.

It is fortunate, however, that reliable sources of milk are not wanting; I have frequently examined samples of milk from reputable dairies in our own State, at a time of year when pasture was no longer to be had; and I have always found them above the standards of purity as set by health boards. Such sources should be diligently sought and encouraged.

The old method of diluting cow's milk with water, and gradually increasing the milk with the advancing age of the infant, from one-third to two-thirds, is familiar to every physician. The defects of this mixture are evident in the shortage of sugar and the low percentage of fat. Dr. William Pepper has long added cream to this diluted milk, with from five to six drachms of sugar of milk to the pint; boiling the mixture when found to disagree. The labors of Dr. Arthur V. Meigs have resulted in great advance in our knowledge of this subject. His experimental observations and clinical experience combine to command the attention of every thoughtful physician; nevertheless, his claim that mother's milk does not (and, consequently, any mixture should not) contain more than about one per cent. of casein, is accepted with varying degrees of confidence by the profession. While my own experimental observations have been limited, yet by my clinical experience I am forced to the conclusion that this estimate is too low; except it be in the early part of lactation. My own practice has been, when a milk mixture was required, to gradually increase the albuminoids to the maximum of the infant's peptic power, and I am convinced that I have thus obtained more efficient nerve power, more vigorous nutrition and a greater resistance to disease, than where mixtures containing only one per cent. of casein were employed without change.

Various mixtures have been devised from time to time with cow's milk as a base; but it remained for Dr. J. F. Meigs to add cream and milk sugar to diluted and alkalinized cow's milk, with the object of adjusting the proportions to correspond to that of the woman. The mixture resulting from his practical experience, and perfected later by Dr. A. V. Meigs, has been on trial for several years. There can be but little objection to this combination on the ground of faulty constitution, but we have found some difficulties in the way of its practicability. The cream to be added is supposed to contain a definite percentage of fat, namely, from fourteen to sixteen. In the country, it would be difficult to determine for many cases the amount of fat contained in a given sample of cream; and in the cities it is not easy to obtain cream at any price. The milkmen object when asked to bring it, on the ground that they do not skim their milk, and when it is obtainable from them it has a varying and always unknown percentage of fat. Another, though minor, objection to the above mixture, is its distinct alkalinity. In my judgment twenty-five per cent.

of lime water is too much. This quantity would only be called for when using a distinctly acid milk, such as is sometimes sold; but when the milk is brought from cows which are properly fed it is not nearly so acid and does not require this treatment.

The recommended mixture of Dr. T. M. Rotch, which is constructed on the same plan as the Meigs' mixture, is open to the same criticism so far as the cream is concerned. The twenty per cent. centrifugal cream of this author which may be obtained in cities is not easy to get in other quarters.

The mode of measuring the sugar in both of these mixures is often found impracticable, in that the quantity required is determined with a measure of weight.

Meigs' modified mixture, suggested at the recent meeting of the American Pediatric Society, is intended to simplify the work of preparation, and it does this effectually. Fresh milk is allowed to stand in a tall vessel for three hours. The top half containing cream is poured off and put aside for use. Sugar water is made by dissolving eighteen drachms of milk sugar in a pint of water. In preparing a four-ounce feeding, three tablespoonfuls each of the top milk and lime water are mixed together, and to this is added two tablespoonfuls of sugar water. It might be urged as an objection, that the mode of adjusting the fat in this mixture is somewhat uncertain. The raising of cream is determined by several variable conditions, and I think three hours is hardly sufficient time to allow all the fat to collect in the upper portion of milk when placed in a tall vessel. However, this mixture is of great utility. I have found it very useful when beginning the proper treatment of ill-fed infants, where a more perfect adjustment could not be carried out.

As milk is the only food which may be taken with advantage during the greater part of the first year, and since in this period the average infant will consume nearly five hundred quarts, it becomes important that we should lay hold of every expedient designed to aid us in perfecting our methods of preparation. The conditions required in order that we may reach this desideratum, are,

First. The uniform purity of materials and the ability to obtain them.

Second. Simplicity of preparation.

Third. Flexibility of formulæ.

Fourth. Moderate cost of the food.

Fifth. Its preservation.

The uniform purity of materials is the first essential requisite to success. By enlisting the interest and co-operation of honest dairymen, we will find little difficulty in getting milk, even in winter, which will have from twelve to fourteen per cent. of solids and a specific gravity of 1.032. Milk, whether from winter-fed or pastured cattle, should not vary more than one or two points on the lactometer.

The milk for our purpose should not be the same as that intended for butter making; for it is possible to feed cows, according to Brush, so that the fat is increased from the normal standard of four to seven per cent. Therefore, it does not follow that the richer the milk in cream the greater its value for infant feeding. It is of equal importance that the cream with which we supplement our mixtures should be constant. It has been the custom to depend on the supply from various commercial sources. Would it not be better if this added cream were taken from the same milk as that which we employ? This leads us to consider how best we may obtain it. Cream is used for the purpose of restoring the fat which is lost by diluting the cow's milk. Since it is true that woman's and cow's milk contain nearly equal proportions of fat, it is then obvious that our finished mixture should contain exactly as much cream as an equal bulk of undiluted milk. The most convenient and accurate means of replacing this important principle is to set aside enough milk the previous day to correspond to the total amount of water used, and collecting the cream add it to our mixture. For example, if our finished food measures thirty ounces, and is one-third milk and two-thirds sugar water and lime water, then we should add to it the cream from twenty ounces of milk. Another important advantage in this method is that we may raise or lower the cream at will, without materially affecting the bulk of the finished preparation.

The manufacture of milk sugar is now an industry of considerable importance, and its source renders it possible to insure equal purity with that of cane sugar.

Pure water is also an essential feature in the object to be attained; as a rule, it will be found possible to obtain spring water, which, being free from organic impurities, is to be preferred. It has also the advantage of holding a uniform percentage of mineral constituents, which is not true of boiled and variously concentrated river water.

The second requirement is that the prep-

aration of the food shall be rendered simple and easy. Under this heading would occur many minor details, the more important of which may be mentioned. The physician should always determine the proportion of ingredients for each case and write out a formula to serve as a guide to the attendant. The preparation at once of the amount to be used in twenty-four hours is preferable to the making of each feeding separately. The total number of ingredients in any possible modification of the mixture are five; and it is a significant fact that they correspond exactly in number to the elementary principles of the most highly organized foods. They are milk, cream, milk sugar, water, and lime water. The first two should always be mixed together thoroughly, the second two should be made in solution by heat and then added to the former, the lime water being kept aside and added to each separate portion just before feeding, in the proportion of one-fifth of its bulk. The reason for this last precaution is apparent when we remember that heating the lime water deposits a portion of the lime. Lime water is a saturated solution of lime and most saturated when made cold, holding only ten grains of lime to the pint. The sugar required for any formula can most easily be measured with an ordinary boxwood seidlitz powder measure, which may be purchased for a few cents of any druggist. The amount of sugar required in order to bring it up in a mixture to seven per cent. may be easily determined by a simple rule-of-three calculation, remembering that cow's milk contains about four per cent. of sugar, and that a pint of water contains seven thousand grains. The result in grains, divided by the capacity in grains of the seidlitz measure, will give the number of measurefuls required by the formula.

Experience has taught us that no inflexible rule can be followed in adjusting the proportion of ingredients. If an analysis of the mother's milk could always be made prior to the preparation of a substitute mixture, we would find that nature provides a food, variable in its composition yet exactly suited to the special requirements of the individual. This is well proven by the analyses of human milk already made, all of which seem to differ in some particular.

It becomes necessary, then, to adapt the substitute to a great variety of food capacities, and to as many degrees of digestive power. The sound judgment of the physician will be the safest guide as to the relative proportion of ingredients required by individual cases. We have found the plan so long in vogue, of using one-third, then one-half, and lastly two-thirds milk, a good general rule in determining the amount of casein for a given mixture. This allows of changes at the will and discretion of the attendant; for when the milk is reduced the water is increased; and when the total quantity is increased the proportion of milk and diluents may still be preserved.

As a rule, it will be found that the food may contain milk in the proportion of one-third during the first three months, one-half during the next six months and two-thirds during the last three months of the first year.

My own experience has led me to adopt the following general plan as a guide in fixing the amount of food which may be taken:

1st week, 10 feedings of 1 to 1½ ounces each.

2d and 3d week, 9 feedings of 1½ to 2 ounces each.

4th week, 8 feedings of 2 to 2½ ounces each.

2d and 3d month, 7 feedings of 2½ to 3½ ounces each.

4th and 5th month, 6 feedings of 4½ to 5½ ounces each.

6th and 7th month, 6 feedings of 5½ to 6½ ounces each.

8th and 9th month, 5 feedings of 7 to 8 ounces each.

9th to 12th month, 5 feedings of 8 to 10 ounces each.

The question of cost is one of importance to the larger part of those who are concerned. In popularizing our improved methods, they must be shown to be at least no more expensive than others; and it is a fortunate provision in this, as in other matters concerning our welfare, which makes the best the cheapest. Careful calculation will reveal the fact that the average cost of these milk mixtures is about twelve cents per day.

Sterilization is the capstone of this important column. To this do we owe our ability to preserve the infant's food against the numerous destructive agents which abound on every hand. Thoughtful men have for years baked the nursing bottles which were plugged with cotton; others filling them with boiled food have corked and inverted them. Boiling is a simple means of rendering milk sterile; but the temperature required, which is considerably

above the boiling point of water, seems to disintegrate the fats. The atmosphere of live steam, which has a temperature of 212° F. is preferable if it can be made to permeate the flasks and the mixture contained therein. Milk subjected for a long time to this temperature, does not acquire the odor or taste of boiled milk ; nor does there seem to be any change in fats or casein.

Several appliances have been devised for the sterilizer. A simple steamer, which may be constructed by any tinsmith, will answer the purpose. A suitable size is one having a depth of thirteen inches and a diameter of nine inches, with an inward flange four inches from the bottom, upon which rests a movable and perforated false bottom. The cover should be loosely fitted, and have a small vent tube running through the handle. For containers in which the separate feedings are sterilized and kept until wanted, I have used chemical flasks (No. 2000) made by Whitehall, Tatum & Co. They are of thin annealed glass, and the steam heat readily permeates them ; they are easily cleaned, and in this respect are better that the Erlenmyer flasks recommended by others. The neck being longer the cotton plug is also more easily retained. In order to complete the sterilizing process, it is necessary that the milk should be prepared in bulk and divided in equal portions, so that no two feedings shall be exposed to the air at the same time. These are measured into the flasks, which are afterwards tightly closed with absorbent cotton. They are now placed on the steamer on the perforated false bottom, the water in the lower chamber being kept in a state of ebullition for forty-five minutes. This will be sufficient to destroy all pathogenic bacteria, protect the milk from the causes of fermentation, and insure its preservation for a larger time than is required.

To recapitulate, we have before us a subject, which, though viewed from various standpoints, has recently been given a scientific aspect. Through the slow process of experience, together with the precepts of careful observers, we have been able finally to establish a rational basis for our methods. That cow's milk when modified to correspond to woman's milk is the best substitute, we think is proved beyond question ; and also that milk mixtures so constructed as to fulfill the requirements of purity, simplicity, flexibility and moderate cost give us when properly preserved the nearest approach to the food which nature has provided for the infant.

63 New Street.

Society Reports.

AMERICAN MEDICAL ASSOCIATION.

Forty-first Annual Meeting, at Nashville, Tenn., May 20–23, 1890.

Second Day, Wednesday, May 21.

In the Section on Practice of Medicine Dr. George Fackler, of Cincinnati, read a paper on

Calomel as a Diuretic.

He related the history of three cases of heart disease attended by œdema in which calomel, in doses of about four grains three times daily, usually continued four days or longer, caused decided polyuria and disappearance of ascites and œdema. In most of these cases digitalis and other of the older diuretics had failed. In a fourth case, in which the cardiac trouble was far advanced, calomel also failed to act as a diuretic. The drug, when administered in this manner, caused slight, sometimes severe, salivation and stomatis. He thinks that calomel, and, in all probability, other mercurial compounds, possess diuretic action. If given in proper doses the effect of calomel becomes evident from the second to the tenth day. Continuation of the treatment during diuresis will not alter or increase the effect. Its action is most marked in dropsies due to heart disease ; in dropsies of hepatic origin it is not to be relied upon. Pathological changes in the kidney interfere with its action. Small doses are of no use. The diuretic action, in all probability, is due to the irritating effect which mercury exercises during elimination upon the renal epithelium.

Continued Fevers of the South.

An interesting discussion on the fevers of the South was opened by Dr. W. W. Johnson, of Washington, in a paper read by the secretary.

He thinks that enteric fever is a rare disease in the South in the typical or intense

form. There is probably a change going on in the form of enteric fever in the South which has lessened its typical character, so that it is becoming milder. Many cases of mild continued fever which had no well-defined course or symptoms are cases of mild enteric fever, erroneously diagnosticated at times as malarial and intermittent fever. Dr. Johnson thinks there is no good reason to believe there is such a disease as typho-malarial fever.

Dr. George Dock, of Galveston, said that a combination of typhoid and malarial fever has been demonstrated. In Texas, however, they never speak of typho-malarial fever, but they have a continued fever which is commonly spoken of as catarrhal, and the question has been discussed among them whether they have to deal with typhoid fever or a catarrhal fever. As to the latter, there have been no autopsies to show its pathology out of the many cases in which it was said to have been the cause of death. His own opinion is that such cases are usually enteric, though not running a typical course. In half a dozen cases he had verified this view by an autopsy, at which the essential lesions of typhoid were found in the intestines. Those who hold to the separate nature of catarrhal fever adopt a different treatment, giving heroic doses of antipyrine, such as one hundred and fifteen grains three times a day. (!)

Dr. Sears said he had been practicing thirty-five years in Texas, and had there seldom seen typical typhoid fever. But he had treated a large number of cases of continued fever which he had no hesitation in pronouncing purely malarial. They had the mixed types of remittent, intermittent and continued malarial fevers. These fevers, if continued sufficiently long, might take on the typhoid state, as might pneumonia and other affections, especially when badly managed, but it was not really typhoid. The patient should take quinine, and although he did not claim that this drug cured, it did prevent fatal consequences. The recovery might be abrupt or gradual.

A variety of opinions were expressed and the subject was by no means finally settled.

In the Obstetric Section, Dr. W. W. Potter, of Buffalo, presented his

President's Address.

He gave some new ideas as to how the Section should be conducted. He advised that the secretary be elected for a longer time than one year, as in that time a secretary learns only how to be of service and become acquainted with the members. He would have an assistant secretary elected each year, probably from the place of meeting. He urged a prompt and full report of the proceedings of the Section in pamphlet form. He advised the securing of a stenographer. He also thought there should be a vice-chairman elected to fill the place of the chairman in case of unavoidable absence.

He then advocated strict antisepsis in labor, and discussed the traction forceps. He thinks these serviceable in some cases and not to be so sweepingly condemned as on their first appearance. Their assistance often enables one to save both mother and child, as where impaction of the head is accompanied by uterine inertia.

Dr. Franklin H. Martin, of Chicago, read a paper on

Early Vaginal Hysterectomy for Cancer of the Uterus.

He had collected one hundred and thirty-four cases which had been performed since January 1, 1885, with the idea of getting at the future immediate mortality of this operation. The mortality was less than fifteen per cent. Of 25 operations, 4 had been operated on but once; 3, twice; 2, three times; 3, four times; 5, five times; 1, eight times; 1, twelve times; 1, thirteen times, and 1, twenty times. The average mortality of operators having the largest number of cases was but ten per cent. He thinks that vaginal hysterectomy is the most justifiable surgical procedure for cancer of the uterus, and should be attempted at the earliest possible moment after the disease is diagnosticated; because it will remove the entire disease in cancer of any portion of the uterus in a greater proportion of cases than any other surgical procedure now recommended, and will enable the operator to go farther beyond the diseased tissue into healthy tissue than any other surgical procedure. It also leaves the remaining tissues in a less favorable condition for return of the disease than will any other operation. Dr. Martin thinks that vaginal hysterectomy for cancer of the uterus will, in the future, give an immediate mortality among general operators of not more than ten per cent. In the hands of experts this will not exceed five per cent.

Third Day, May 22.

After the meeting was called to order, Dr. Eugene Griscom, Chairman of the Nominating Committee, submitted the following report of the names of the persons nominated by the Committee on Nominations to fill the various offices in the Association for the ensuing year: *President*, W. T. Briggs, M. D., Tennessee; *First Vice-President*, C. A. Lindley, M. D., Connecticut; *Second Vice-President*, R. C. Moore, M. D., Nebraska; *Third Vice-President*, H. C. Wyman, M. D., Michigan; *Fourth Vice-President*, L. P. Gibson, M. D., Arkansas; *Treasurer*, R. J. Dunglison, M. D., Pennsylvania; *Permanent Secretary*, W. B. Atkinson, M. D., Pennsylvania; *Librarian*, C. L. Richardson, M. D., District of Columbia; *Trustees of Journal*, J. B. Hamilton, M. D., District of Columbia; J. V. Shoemaker, M. D., Pennsylvania; D. E. Nelson, M. D., Tennessee. *Judicial Council*, X. C. Scott, M. D., Ohio; W. F. Peck, M. D., Iowa; J. A. Lane, M. D., Kansas; J. H. Murphy, M. D., Minnesota; J. J. Happel, M. D., Tennessee; D. J. Roberts, M. D., Tennessee; A. Garcelon, M. D., Maine.

San Francisco, California, was chosen by the committee as the place of next meeting. Date, first Tuesday in May, 1891. E. L. Shurley, M. D., of Michigan, was appointed to give the Address on General Medicine. Joseph M. Mathews, M. D., of Kentucky, Address on General Surgery. W. L. Schenck, M. D., of Kansas, Address on State Medicine.

The Convention adopted the report of the committee, substituting, however, Washington, District of Columbia, for San Francisco, California, as the place of meeting in 1891. Dr. W. C. Patterson, M. D., was appointed chairman, and C. H. A. Kleinschmidt, M. D., secretary of the local committee.

Dr. Samuel Logan, of New Orleans, then read the

Address on General Surgery,

in which a very careful synopsis of recent progress in surgery was given. The speaker summarized the conclusions of the famous Hyderabad Chloroform Commission, and contrasted with their results the findings of Dr. H. C. Wood and Dr. H. A. Hare, both of Philadelphia. He particularly cautioned against giving chloroform vapor in concentrated form, and against continuing the administration where there is the slightest embarrassment in breathing. Gradual introduction of the vapor is the golden rule in using this agent. Local anæsthesia was briefly discussed, then antiseptics, particular attention being given to Lister's double cyanide gauze. The dry method of wound treatment was advocated on the ground that prompt primary union followed in all suitable cases; drainage was advocated only when the surgeon could not be sure that the wound was aseptic. In cerebral surgery the speaker was greatly influenced by von Bergmann's valuable monograph upon this subject. Abdominal surgery was dwelt upon at length.

Address on Dietetics.

Dr. E. A. Wood, Chairman of the Committee on Dietetics, then delivered the address on Dietetics. He pointed out the evil results which follow the unguided administration of food to children. The jaws and teeth of children should receive their proper exercise, in order that they may attain their proper development. Starch foods washed into the stomach without admixture with saliva are not digested. The average child fed on firm food requiring mastication will grow up with strong, square jaws, and will become a vigorous and well-developed adult.

A report followed from the Committee on American Colleges, advising preliminary examinations for admission to medical schools, annual examinations, and a three years' course.

In the Section of Diseases of Children Dr. W. L. Stowell, of New York, read a paper on

High Temperature in Children,

in which the speaker said that the child's temperature is normally higher than that of the adult. The temperature may be very high from apparently trifling causes, usually nervous impressions or reflex disturbance. All the febrile diseases have what might be called their normal range of temperature, and it does not indicate treatment unless excessive or out of its normal course. Antipyretics are to be used with caution, lest while they lessen fever they, by weakening the heart, lessen the chance of favorable termination of the disease. The temperature may often be lessened indirectly by heart tonics, general tonics and food. The tendency of nutrition in childhood is towards growth and repair, not degeneration, hence

careful nursing and feeding will do more towards a favorable result than drugs.

Duality of Croup and Diphtheria.

Dr. Carl Seiler, of Philadelphia, in opening the discussion on the duality of croup and diphtheria, said that in his belief they were certainly different diseases. In diphtheria there is always a peculiar characteristic odor about the body and a marked difference between the membrane found in the two states. Again, diphtheria comes suddenly, while croup develops slowly. The poison of diphtheria varies very much in its effects in children of the same family sick at the same time.

The discussion was continued by Dr. Porter, of St. Louis, and Dr. Jackson, of Syracuse. Dr. E. R. Early then read a paper on "Croup," in which he gave the history, clinical features and treatment of the disease.

In the Section of Practice of Medicine, Materia Medica, and Physiology, a number of papers were read by title, after which Dr. J. M. French, of Cincinnati, Ohio, read a paper on "Oxygen; its True Value as a Therapeutic Agent." Dr. E. L. Shurley, of Detroit, Mich., then read a paper on "The Local Treatment of Phthisis Pulmonalis," in which he advocated the local use of creasote by a modification of insufflation and forced inspiration. Dr. W. B. Davis, of Cincinnati, read a paper entitled, "Functional Albuminuria."

Periscope.

A Case of Tetanus. Recovery.

The following case of tetanus, followed by recovery, is reported by Dr. George H. Stroup, in the *University Medical Magazine*, Feb. 1, 1890: John R., 31 years old, colored, coachman, while walking over some old lumber accidentally fell on a projecting nail which entered the knee at outer side of right patella, to the depth of an inch. He pulled it out immediately, and thought little of the occurrence until five days after, November 2, 1889, when he experienced peculiar pains and hardness of the muscles of his back, also stiffness of the neck, a contraction of the facial muscles and a staggering gait.

About 8 o'clock the same evening Dr. Stroup was summoned very hastily to see the man, and found him in all the agonies of tetanus: jaws locked, muscles stiff, back arched, the whole body rigid, and with great drops of perspiration on his face and neck. Dr. Stroup immediately ordered a tub, hot water, blankets, and a clothes-horse, over which the blankets were placed. With considerable difficulty he was stood in the tub while the hot water was poured over him. After one hour and thirty minutes of this steaming treatment he regained some control over his muscles, and asked to be let out. The muscles appeared to be relaxing, and he was able to bend the knee down into the tub. Fifteen minutes later 30 grains of bromide, with 10 drops of chloroform were forced into his mouth; in 20 minutes he cried to be let out. Thirty grains more of bromide with 15 drops of ether were given. The steam and heat under the blankets were by this time intense, and, as the patient seemed to be about fainting, he was taken out and given 30 grains more of bromide with 20 grains of chloral. He was then wrapped in blankets and put to bed.

Dr. Stroup did not leave him until midnight. At one o'clock he was again summoned. The muscles were twitching, and stiffness of the jaws again commencing. Sixty grains of bromide with 20 grains of chloral were immediately given; in half an hour he was alseep, and did not awake until 5 o'clock Sunday morning. On waking he could open his mouth sufficiently to say he had pain at the knee and stiffness in his jaw. Some milk and beef tea was given. As he had intense craving for water, he was given some in a glass; he had no sooner swallowed it than the convulsive movements commenced again; this occurred every time water was taken. Chicken broth was then prepared, but it acted in the same way as the water. Milk and beef juice were all he could take without producing convulsions. A small piece of meat was put into his mouth but he could not close the jaws to chew it.

About 3 P. M., November 3, Dr. Stroup was again summoned. The messenger said he was dying, and on arriving at his room he was found to be suffering from all the acute symptoms first described, and was evidently dying. A hypodermic injection of morphia and cocaine was given at once, one-half grain of each. As this appeared to do very little good, in half an hour two more doses of one-quarter grain each were ad-

ministered in succession. In about twenty minutes, seeing very little effect from the injections, and thinking he must surely die, Dr. Stroup plunged a tenotomy knife into the cicatrix where the nail had entered, cutting down deeply. He had no sooner withdrawn the blade than the muscles, which were so rigid that five men who were assisting could not bend the arm or leg, almost immediately relaxed, and the patient cried: "Oh, Doctor, don't!" The wound made by the knife was filled with iodoform and the leg bandaged.

From this time to the end of the first week there was considerable stiffness of the jaw with pain at the knee, the pain gradually passing down the leg to the great toe, after which it disappeared entirely.

During this first week the patient took daily 120 grains of bromide with the same amount of chloral; at the end of the second week he was out of bed, and by the end of the third week was walking about. His subsequent recovery was complete.

Powdered Meat.

As long ago as 1874, Dannecy, Chief Pharmacist of the hospitals of Bordeaux, prepared an excellent article of food for invalids by making a powder of meat. He took meat, chopped it very fine, and spread it upon muslin, drying it by means of a current of air. In this way he obtained a friable mass, which was easily powdered. It was administered by adding it to beef tea or spreading it upon bread. It could also be mixed with the ingredients used for making biscuits, and this combination was found to be especially suitable for administration to children.

In the same year Yvon suggested the following method of preparing a palatable meat food: Take of raw meat (filet of beef), 250 parts; of charred sweet almonds, 75 parts; of bitter almonds, 50 parts; of white sugar, 80 parts. Rub slowly in a mortar until a homogeneous paste is obtained, adding from time to time a sufficient quantity of water to give a proper consistency for a semi-solid or a liquid mixture. In the liquid preparation the meat will settle after awhile, but may be dispersed through it by shaking. The preparation may be preserved for a long time if bottled and kept in a cool place; and its nutritious character may be enhanced by adding to it the yolks of one or more eggs.

Cremation in California.

Dr. Walter Lindley, of Los Angeles, in his opening address before the Medical Society of the State of California, says that there appears to be a general revival of cremation as a method for the disposal of the dead. The Cremation Society of Southern California was incorporated about three years ago. Its building consists of a neat chapel, connected with the furnace-room by a large sliding door. The main object of the Society has been to furnish a quick and powerful heat, without allowing the flames to come in contact with the body. No direct currents of air pass over it; the heat is still and of a temperature of about 2,000° F., doing its work in less than an hour, and permitting none of the essential particles to escape. No other crematory exists west of the city of St. Louis. The Society has had about thirty cremations, all of which are said to have been highly satisfactory in their methods and results. While Dr. Lindley does not see any imperative reason at present for adopting this method, yet, as our land becomes more densely populated, it will become incumbent upon us, as a profession, to lead the way — for sanitary reasons — to some method of disposing of the dead, different from the present method of sepulture.—*Occidental Med. Times*, May, 1890.

A Long Fall.

A remarkable fall of a miner down 100 metres of shaft (about 333 feet) without being killed, is recorded by M. Reumeaux in the *Bulletin de l' Industrie Minérale*. While working with his brother in a gallery which issued on the shaft, the man forgot the direction in which he was pushing the truck: so it went over, and he after it, falling into some mud with about three inches of water. As stated in *Nature*, he seems neither to have struck any of the wood *débris*, nor the sides of the shaft, and he showed no contusions when he was helped out by his brother after about ten minutes. He could not, however, recall any of his impressions during the fall. The velocity on reaching the bottom would be about 140 feet, and time of fall 4.12 seconds; but it is thought it must have taken longer. It appears strange that he should have escaped simple suffocation and loss of consciousness during a time sufficient for the water to have drowned him.—*Science*, April 11, 1890.

The "Lancashire Cure" for Hydrophobia.

A curious instance of the readiness of the lay mind to accept statements on the efficacy of methods of treatment without the necessary support of scientific evidence has just been shown in the resolution of the Rabies Order Committee of the Heywood Town Council to recommend the council to grant a testimonial under the corporation seal to the owner of a secret "cure for hydrophobia." It appears that last November five persons in Heywood were badly bitten by an alleged mad dog, and were treated by this "cure" on the recommendation of the chief constable of Clitheroe. The statement was made that the remedy had been in existence for over 100 years, a writer in the *Gentleman's Magazine* in 1783 saying that 400 cases had been successfully treated by it. Since then it was said "that 600 more cases had been treated, and not a single failure." As everything, of course, turns upon the actual rabidity of the animals inflicting the bites, nothing can be inferred from such statements; but as to the Heywood cases, it may be pointed out that, if actually rabid, it is still somewhat premature to present testimonials in support of the efficacy of the remedy.—*Lancet*, May 3, 1890.

Druggists' Charges.

Complaints having been preferred to the Austrian authorities to the effect that the apothecaries at certain fashionable springs and health resorts were demanding very high prices for filling prescriptions, and otherwise overcharging, an investigation was recently ordered the result of which was an official "warning" to all apothecaries at "*Bade und Kurorte*" notifying them that they must closely adhere to the scale of prices in force in Vienna. This led to replies, which set the authorities to investigating the tariff of the Viennese apothecaries, and the result was a discovery that some of these had been heavily overcharging. Thus the matter stands at last advices.—*National Druggist*, March 15, 1890.

International Sanitary Regulations.

One of the most important questions which has been submitted to the Pan-American Congress was, undoubtedly, that which asked for a decision upon means tending to prevent the conflict which may arise at the time of epidemic invasion between the diverse sanitary regulations which the American nations have seen fit to adopt in order to shield themselves from such invasions. A committee was appointed to examine the work of special sanitary congresses and conferences, which have met at different times in several parts of the world; and it has reached its conclusions by accepting the results of exhaustive studies, made by men eminent in the profession in Europe as well as in America. The report of the committee, which was adopted by the Congress, says that complete isolation, which, theoretically, appears to be the most effective prophylactic against the invasions of epidemic diseases, does not afford, in practice, satisfactory results as a sanitary measure, but tends, on the other hand, to notably injure the commercial interests of the countries. Dr. Francisco Rosas, President of the Sanitary Congress of Lima, thus expresses himself on this point: "It is scientifically demonstrated by innumerable facts that the closing of ports and frontiers does not prevent the invasion of epidemics; that these enter and develop with greater violence in the countries which pretend to isolate themselves, because, under the mistaken belief that they are free of all danger, they disregard the proper means to restrain the development of the epidemic, and, above all, to lessen its severity."

But, if absolute isolation, as a prophylactic, is nothing more than an illusion, the same may not be said of the sanitary means that modern science has placed within our reach for the disinfection of infected localities, as well as to prevent the introduction and development of contagion in those which have remained in a state of health.

The committee, in conclusion, suggests that, although it does not appear that the plans of the Sanitary Congress of Lima, of 1889, have passed into the category of international compacts, it is to be hoped that they will be accepted by the governments that participated in the said Congress, because those plans were discussed and approved by medical men of acknowledged ability.

If these were duly observed in all America they would prevent, under any circumstances, the conflict which usually arises between the obligation to care for the public health and the principle of freedom of communication between countries.

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When it is desired to call our attention to something in a newspaper, mark the passage boldly with a colored pencil, and write on the wrapper "Marked copy." Unless this is done, newspapers are not looked at.
The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

OBJECTIONABLE CENSUS QUESTIONS.

A natural feeling of surprise has been excited by the printed questions which have recently been sent to physicians in the United States, asking them to report to the Census Office the names of persons suffering with a variety of chronic diseases and defects. To the immediate and general expressions of disapproval which came from physicians in different parts of the country, a certain concession seems to have been made by the issuing of instructions to the enumerators that, when replies to questions of this sort are refused, they are to mark "refused to answer" opposite the questions, in their returns, and not to attempt to impose the penalty which the law provides for refusal. It is stated in this connection that "all legal proceedings will be instituted by the Washington office."

It is to be hoped that this means that no such proceedings will be instituted; for we cannot see how the Census Bureau could insist upon pushing to a conclusion the foolish provisions of the law under which they are operating. As a rule the inhabitants of any country should submit to the impositions of law-makers whom they themselves have chosen, and they should also be willing to admit that there may be good reasons for what seems to them entirely unreasonable, and therefore submit without cavil. But there are occasions when it is proper to refuse obedience to laws which appear to a large and intelligent and conscientious body of citizens to be unjust or unwise, especially if such refusal has a reasonable chance of leading to the repeal or suspension of such laws.

The present occasion we believe to be such a one, and we think it right and not unwise to suggest to the readers of the MEDICAL AND SURGICAL REPORTER that they refuse to furnish the enumerators or the Washington Office with the names of persons of whose defects or diseases they have become informed in their professional and confidential relations with them. We have no doubt that the attempt to make witnesses of physicians, except in courts of justice or tribunals to which the functions of courts are attached, is unconstitutional, and cannot be carried out.

We have no idea that the Census Office will proceed against any one who declines to disclose the professional confidences of his medical experience; and, if it should, we have no idea that the courts will sustain it in doing so.

The Editor of the REPORTER will decline to answer the questions referred to, on the grounds indicated above, and he hopes that all the physicians in the country will do the same; because the more there are who do this, the stronger will be the force of the protest against what we all must think to be a false step on the part of the framers of these inquisitorial questions, and a serious

invasion of the rights of those who have committed to us secrets of the most sacred character.

TREATMENT OF AGGRAVATED CASES OF HEMORRHOIDS.

Piles are well known to be a very common disease. In very many cases they do not require operative treatment, as their causes —such as produce a determination of blood to the rectum or retard its return—can be obviated by general medical and local treatment. The numbers of operations which have been performed for piles, and the fact that there are not a few men who devote themselves to diseases of the rectum as a specialty, indicates that there is a large number of cases left in which operative treatment is necessary. In a few of these the disease is so aggravated by continuance for years as to justify heroic measures. It is for such cases that Dr. Lewis S. Pilcher, in the *Annals of Surgery*, May, 1890, recommends what is known as Whitehead's operation. In these cases, he says, the surgeon has no longer to do with a simple varicose condition of the hemorrhoidal veins, nor with a fairly well defined and circumscribed polypoid hypertrophy of the vessels and submucous tissues, but with a true angeioma, which, although on its surface it may be more or less tabulated, in its deeper portion is formed by a continuous network of dilated vessels or cavernous spaces bound together by a varying amount of connective tissue. These tumors are richly supplied with blood from terminal branches of the middle meningeal artery, which descend to them almost vertically in the submucous coat of the rectum. A dozen of these vessels may require tying in the worst cases. Their pulsation can be felt by introducing the finger into the rectum above the tumor Dr. Pilcher has had six cases of the kind described ; the patients were all in the prime of life, between thirty and forty years of age, and in all but one the piles dated back to their early youth. This fact is held to indicate an original inherent developmental defect in the vascular network at the lower end of the rectum. Associated with the angeioma are œdema and relaxation of the adjacent mucous membrane and of the sphincter, which add greatly to the sense of weight and discomfort. But, notwithstanding the apparent gravity of the disease and the great drain upon the patient's strength by loss of blood and mental and physical suffering, the tumor occupies usually only from an inch to an inch and a half of the rectum, and is superficial, involving only the mucous membrane and the submucous connective tissue, so that it may be enucleated readily from the sphincters. These considerations make the operation of excision, or Whitehead's operation, the most certain method of disposing of the tumor.

Regarding the danger of the operation, nothing more need be said than to quote the results of Mr. Whitehead, which he reported to the British Medical Association, in August, 1886. He had up to that time operated on more than three hundred patients, without a death, a single instance of secondary hemorrhage, or a single case in which any complication, such as ulceration, abscess, stricture or incontinence of feces had occurred. Mr. Whitehead further stated that, to the best of his knowledge, every patient had been completely and permanently cured. Nevertheless Dr. Pilcher thinks it should be ranked as a major operation, and that in the hands of an unskilled operator it would justify the opinion of Kelsey, that it is "naturally difficult, tedious and bloody."

The cautions which Dr. Pilcher advises are important. In the first place care should be taken not to injure the sphincter, lest incontinence of feces result. It is by no means easy to recognize the fibres of the sphincter, especially when the tumor is large and the muscle flabby, and the additional preliminary stretching has entirely relaxed it. The first steps in the operation, therefore, should be characterized by great care

in the identification and avoidance of the sphincter. When, he says, the muscle has been identified and drawn aside at a given point, the further enucleation may be done with expedition and without danger to it.

A second caution pertains to the tumor itself. If care is not taken to keep close to the surface of the muscle, and thus to keep outside of the vascular tissue of the tumor proper, the process of enucleation will be more difficult and will be attended with an unnecessary amount of venous hemorrhage. When, however, the sound tissues beyond the tumor have once been reached at any point, the further enucleation may be accomplished readily and safely by pursuing the enucleation circularly around the bowel from this point, and working downward to the anus. The dissection should be pushed well upward beyond the diseased portion and at all points, at the same level, so that the final transverse section shall pass through healthy tissue, and so that there shall be no redundancy of tissue at any part from which ectropion ani might result. None of the skin, however, should be cut away; for, while at the time of suturing the sutures will be well outside the anus, as time passes the walls of the rectum will regain tonicity and retract upward until finally the line of sutures disappears within the margins of the anus.

This operation, it will be remembered, Dr. Pilcher recommends now only in the most aggravated cases of hemorrhoids. His judgment is that it is based upon sound surgical principles and that it is a valuable and permanent addition to operative surgery. There can be no question that the operation is thorough and complete, and with the testimony of two such trustworthy surgeons as Mr. Whitehead and Dr. Pilcher there would appear to be no doubt that it is relatively free from danger in skilled hands; it is therefore probable that with those who have experienced its merits it will become more popular.

TREATMENT OF STRICTURE BY THE RETAINED SOUND.

The difficulty of treating certain cases of stricture of the urethra, especially when all the appliances of urethral surgery are not at hand, is often very great; and medical practitioners may regard with more than ordinary interest any method which promises to lessen this difficulty. Such a method has been proposed by Gueterbock, in an article in the *Deutsche Zeitschrift für Chirurgie.* It consists in the introduction into the urethra of a fine flexible bougie, or sound, and leaving it in place for three days. The sound should not quite fill the caliber of the stricture, and will thoroughly drain the bladder, as is well known to be the case with solid instruments left in the urethra. Gueterbock states that after the sound has remained in place for three days, on its withdrawal it will be found that the urethra will admit an instrument corresponding to its normal caliber.

In using this method it is important that the urethra shall be thoroughly cleansed of all pus or other material capable of exerting a deleterious influence upon the mucous membrane, and that the bougie shall be rendered aseptic.

The explanation of the action of this method is that the bougie, by its presence, promotes relaxation and softening of the tissue of the stricture. Gueterbock says it is especially indicated in cases in which great irritability and sensitiveness is produced by the introduction of dilating instruments, and when these symptoms cannot be relieved by narcotics, or are accompanied with a tendency to hemorrhage; in cases of injuries produced by the catheter, especially in cases of false passages; in cases in which the stricture is difficult to enter, in consequence of its eccentric position or the valvular character of its orifice, and in cases of necessity, where it is desired to give the urethra a normal caliber as expeditiously as possible, without resorting to cutting or divulsion.

The treatment of stricture of the urethra with retained sounds is contra-indicated in cases of stricture calling for more forcible methods; further, in strictures with exceedingly callous tissue; and, finally, when the urine is very irritating and likely to injure the mucous membrane if kept in contract with it for any length of time.

The statement of these indications and contra-indications will probably suggest that the method is hardly to be regarded as a panacea, and also that it is hardly to be expected that it would always bring a strictured urethra in three days to such dimensions that it would admit an instrument corresponding to its normal caliber. Nevertheless, it would probably be worth while to give the method a fair trial; for if it accomplished much less than is claimed, it might still be a great boon to medical men and their patients.

MASTURBATION.

A physician, brought more or less constantly in contact with cases suffering or supposed to be afflicted with disturbances connected with the misuse of the generative organs, witnesses, in the majority of instances, humanity in the picture of abject misery. Most persons so afflicted, before consulting a regular practitioner of medicine, have read and re-read advertisements in the secular press of the untold evils resulting from their supposed condition, with the natural consequence of working up their mental imaginations to a state that beggars description, and makes them an easy prey to the so-called specialists. It is not to be wondered at, then, that many, particularly those who practice masturbation, some of whom are naturally weak-minded, wind up their career in insane asylums. Such being the case, it behooves the medical profession to adopt some measures to counteract, if possible, this tendency of consulting quacks, with its attending evils. The so-called popular lectures upon these subjects do but little if any good in this direction; in fact, their tendency, according to good authority, is harmful rather than otherwise. The family physician, in a quiet way, with a little tact, can exert a wonderful influence in ameliorating these evils, which to-day are sapping the vitality of many of America's youth.

In masturbation we have a habit, the practice of which is found to occur under a variety of circumstances. First, in very young children, arising from some local irritation, want of cleanliness, etc.; secondly, in individuals who have passed, reached, or are near the age of puberty, and have either accidentally learned or been taught this pernicious habit; thirdly, a class of cases may be mentioned in which the practice has a central origin, in certain forms of brain-disease or cerebral deficiency, as is seen in some forms of insanity and in idiocy.

Excluding the last class of cases, we have two classes, in which the physician may deal hygienically and morally as well as remedially. If every physician made it a habit to carefully examine the new-born infant in respect to its genitalia, separating any adhesions to the glans penis, and would then instruct the parent as to the proper method of keeping the parts clean, one cause of irritation to the male organ would be removed.

In the second class of cases the moral aspect of a physician's duty is exemplified. As the family medical adviser, he should see to it that the youth approaching manhood is notified by either the parent or himself of the serious constitutional effects the indulgence in masturbation will produce. Such information, coming from such sources, cannot fail to accomplish some good, sooner or later.

Leaving those cases of self-abuse requiring only moral persuasion and advice, we will devote a few moments to the consideration of persons who have masturbated excessively and who are suffering from the nervous shock incident to the oft-repeated orgasm. It is in such cases as these that the quack finds the largest and most lucrative field for

his nostrums. It is in just such cases that his pamphlets and circulars, under alluring titles, find eager perusers, and do a harm that can scarcely ever be corrected.

In the treatment of these cases, much can be done by advising brisk exercise, of both mind and body. Early rising and careful diet should be recommended. Remedies directed towards the treatment of symptoms connected with the nervous, circulatory and digestive systems will be required. Lastly, but by no means least, the physician must gain the patient's entire confidence, not by wounding and severely censuring, but by sympathy and encouragement; trying to elevate him out of his bad habits, in such manner as discretion and the patient's disposition may suggest. Such a course will succeed in the largest number of cases, provided time and sufficient attention be given.

READING AND THE PENNSYLVANIA STATE MEDICAL SOCIETY.

At its last meeting the Berks County Medical Society adopted a resolution instructing the delegates who will attend the meeting of the State Medical Society at Pittsburgh, June 10, to extend an invitation to that body to meet in Reading in 1891. To defray the expenses for the entertainment of delegates the members of the Society obligated themselves to raise the sum of $1,000, and it is the purpose of the Financial Committee to call upon citizens in general to lend their aid in meeting the expenses incident to the occasion.

The State Society has not met in Reading since 1848, and the members of the profession there would be very much gratified if it would come to them in 1891. They are prepared to give the Society a hearty welcome, and the more so since they are now working with great activity and harmony in the interest of medical science. As the meeting of the Society this year is to be in the extreme western part of the State, it might naturally meet in the eastern part next year.

BOOK REVIEWS.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the REPORTER.]

SPINAL CONCUSSION: Surgically considered as a cause of spinal injury, and neurologically restricted to a certain symptom group, for which is suggested the designation Erichsen's Disease, as one form of the traumatic neuroses. By S. V. CLEVENGER, M. D., Consulting Physician Reese and Alexian Hospitals, Chicago. With thirty wood-engravings. 8vo, pp. v, 359. Philadelphia and London: F. A. Davis, 1889. Price, $2.50.

Much attention in recent years has been given to a study of injuries to the spine occurring in railway collisions. Many suits for damages on account of such injuries have stimulated specialists in nervous disease to a critical study of their pathology. In the present work, Dr. Clevenger has endeavored to review carefully the entire subject. His general conclusion is, that the spinal sympathetic system is the main seat of the disease, and that in consequence the cord functions are deranged. The author discusses the writings of Erichsen, Page and Oppenheim, and gives illustrative cases from his personal observation and from the published cases of others. He prefers to call the results of spinal concussion Erichsen's Disease. Of this he gives the symptoms, diagnosis and the differential diagnosis from various forms of myelitis and meningitis, hysteria, and from other conditions liable to cause spinal symptoms.

The treatment of spinal concussion is dismissed with very brief consideration. He thinks it safe to treat the initial stages as those of a severe strain, with hot fomentations, rest in bed, or sitting, as the patient feels the most comfortable. Darkness and quiet are necessary, and disagreeable mental influences should be removed as much as possible. Excitement of all kinds and stimulants must be avoided. Ergot, he says, gives far better results than the bromides. It should be given in doses of from ten minims to a fluid drachm, three or four times daily, to allay the pain in the back and irregular circulation.

The final chapter, on medico-legal considerations, contains a bitter denunciation of the system of medical education in this country, and of the cupidity and rascality of many practitioners. In declaring, however, that "it is the physician's duty to coach the attorney, in and out of court, whether he testify or not," he declares in favor of a practice which makes physicians partisans in a suit instead of disinterested advisers of the court—their highest medico-legal function.

The publication of Dr. Clevenger's book is timely. It is evidently written by a man who has strong personal convictions on the subject, and who is not afraid to maintain them. The book will be consulted with profit by all who are interested in spinal concussion, especially from a medico-legal point of view, and it is a valuable contribution to that subject.

FOOD IN HEALTH AND DISEASE. By I. BURNEY YEO, M. D., F. R. C. P., Professor of Clinical Therapeutics in King's College, London, etc. 8vo, pp. x, 583. Philadelphia: Lea Brothers & Co. Price, $2.00.

Dr. Yeo has divided his book into two parts; in the first he treats of foods in health, and in the second of foods in disease. The nature, origin and purpose of food are mentioned, metabolism described, and the various articles of food taken up particularly and their usefulness indicated. The author goes at some length

into dietaries suitable for soldiers, seamen and prisoners. Food in infancy and childhood receives a fair share of attention, due acknowledgment being made to Dr. Louis Starr for his writings on the subject.

In the second part of the book feeding in acute diseases in convalescence, and in various affections of the stomach, liver and kidneys is considered. The dietetic treatments of obesity of Banting, Ebstein, and Oertel are clearly presented and their differences pointed out. None of the methods, the author justly says, is appropriate to the treatment of all cases of obesity indiscriminately, while any one of them may prove successful in suitable instances. Dr. Yeo also discusses the dietetics of anemia, neurasthenia and phthisis, and under the first two diseases very naturally quotes freely from Weir Mitchell. A selection of hospital dietaries and dietaries for invalids forms a fitting conclusion to the volume.

The appearance of this book is timely, and its subject-matter both interesting and valuable. It would be a revelation to many physicians to learn how much in the way of prevention and treatment of disease can be accomplished by a proper selection of the food. The question of the suitability of various foods to meet certain conditions is one of the greatest importance; Dr. Yeo is to be congratulated on having thrown some light on it, though it must be admitted that a good deal of obscurity still surrounds it.

DIE SYPHILITISCHEN FINGER UND ZEHENENTZÜNDUNGEN, von Dr. Karl Koch, in Nürnberg. SAMMLUNG KLINISCHER VORTRÄGE. No. 359.

SYPHILITIC INFLAMMATIONS OF THE FINGERS AND TOES. By Dr. Karl Koch, Nürnberg. 8vo, pp. 40. Leipzig: Breitkopf and Härtel. April 21, 1890. Price, 75 pfennigs.

Dr. Koch gives a long and detailed description of the inflammations of the fingers and toes occurring in connection with syphilis. The cases are not frequent. The literature is scanty. The author distinguishes several varieties: a cutaneous or subcutaneous, a periosteal, an osseous or medullary, and an articular. One may lead to the other. Still there may be an independent inflammation of a joint. Koch prefers the general designation, doctylitis. Bone is more frequently involved than soft structure. In young children osteomyelitis is the more common, in adults periostitis. Tendons and their sheaths may participate in the process. These inflammations appear as late manifestations of syphilis. Pathologically, the fibrillary connective tissue and the vessels, especially the adventitia, are the seats of the process. Diagnostically, the distinction is to be made from tuberculosis, gout, diabetes and neoplasms, sarcomata and enchondromata. The prognosis is not bad if appropriate treatment is instituted early.

Literary Notes.

—The *Cosmopolitan* has become one of the most attractive of the American monthly magazines. The June number deserves special notice; the illustrations are graceful and artistic, and the class of articles is excellent. S. G. W. Benjamin's "Farm Life and Irrigating in Persia" gives many new ideas of this Oriental people, while Rollo Ogden's article on "Leading Writers of Modern Spain" will prove interesting to all lovers of literature. In this number Miss Bieland takes us with her through Japan; each step of her flying trip being illustrated.

—The House Committee on Patents has ordered a favorable report on a bill which is identical with the International Copyright bill already acted upon adversely by the House, with the addition of a new section, which provides that it shall be of effect only where reciprocal advantages are granted by foreign countries to American authors.

—With the May issue, the *Sammlung Klinischer Vorträge*, which for twenty years has been under the editorial direction of Richard von Volkmann, passes into the hands of Ernst von Bergmann, Wilhelm Erb and Franz Winckel, representing the departments of surgery, medicine, and gynecology and obstetrics. The May number will contain papers from the pen of each: by von Bergmann on Tubercular Ostitis in and at the Atlanto-occipital Joint; by Erb on Dystrophia Muscularis Progressiva; by Winckel on the Rupture of Extra-uterine Gestation sacs.

Correspondence.

The Questions asked by Medical Examining Boards.

To the Editor.

Sir: In the Reporter, April 19, page 464, is an article quoted from the *Northwestern Lancet*, giving answers from applicants to the State Board. These speak for themselves. They show a great necessity for some such examining body. They were, however, probably published by our State Board to gain favor with the profession abroad and the public at large. They were also given to our daily press, and were written up in quite a sensational style. Our State Board is not endorsed by quite a large body of the resident physicians. They have sought to make for themselves a reputation of being strict, and have resulted in being ridiculous and often unjust. I am thoroughly in favor of advanced medical education, but in a practical way. I write, not so much to find fault with our own Board as to bring the matter before the profession, that if possible these things may be avoided elsewhere. The law here makes no appeal from the Board. It is true one can appeal to the Governor, but the examination papers are simply referred to and the percentage counted. There is no appeal from unreasonable questions. The papers are prepared by each individual member of the Board, but they are not present at the examination. Quite often questions are ambiguous, and the applicant has no means of knowing the real meaning. The time allowed for examination is often entirely out of proportion to the work re-

quired. When the writer passed before that body, we were given fourteen or fifteen *topics* to write upon, in obstetrics and gynecology, and had an hour and a half in which to do the work. In practice, the examiner was a specialist and gave but four out of ten questions that the general practitioner would ever meet. In surgery we had two subjects, and the ten questions went into the minor details of two chronic troubles that a man may not see in a lifetime. There was not a single question on acute surgery. The whole examination seemed to be a bid for men fresh from the schools and crammed for an examination.

From what I see of examination papers before and since, they have followed the same plan. Some of the examinations were quite fair and showed an endeavor to get practical answers. Let us have longer study in the medical schools, more restrictions in admissions to them, and let us have also examining boards; but let us have with them all, common sense. A picked list of questions would put our Board in as unfavorable a light as the applicant referred to in the *Northwestern Lancet.*

Yours truly,
C. A. Donaldson, M. D.

Parker, Minn.,
May 20, 1890.

Notes and Comments.

Pennsylvania Medical Society.

The programme of the fortieth annual session of the Medical Society of the State of Pennsylvania, to be held at Pittsburgh, June 10–13, provides for the first day an address of welcome, by Dr. E. A. Wood; an address on medicine, by Dr. J. C. Wilson, Philadelphia; an address on hygiene, by Dr. T. J. Mays, Philadelphia; a report of 340 cases of labor, by Dr. J. M. Batten, Pittsburgh; a report of a case of sarcoma of choroid, by Dr. Wm. C. Bane, Pittsburgh; and a paper on value of measures over medicines, by Dr. J. Madison Taylor, Philadelphia.

In the evening of the first day, President Dr. J. B. Murdock will deliver his Presidential Address.

On the second day there will be an address in laryngology, by Dr. Wm. H. Daly, Pittsburgh; and papers on diet in therapeutics, by Dr. Solomon Solis-Cohen, Philadelphia; trephining in traumatic insanity, by Dr. Samuel Ayers, Pittsburgh; needed legislation in the treatment of dipsomania, by Dr. T. D. Dunn, West Chester; report of the Committee on Clinical Research, by Dr. John B. Roberts, Chairman; report of the Committee on Management of Pennsylvania Hospitals for the Insane, by Dr. Samuel Ayers, Chairman; an address on surgery, by Dr. John B. Roberts, Philadelphia; papers on the intraocular syringe in cataract extraction, by Dr. J. A. Lippincott, Pittsburgh; management of obstinate dropsies, by Dr. James Tyson, Philadelphia; chemistry of cooking, by Dr. Traill Green, Easton; the present status of the code of ethics, by Dr. J. H. Packard, Philadelphia; the value of primary anæsthesia from ether, by Dr. J. H. Packard, Philadelphia; prolapsus of the rectum in children, by Dr. H. R. Wharton, Philadelphia.

On the third day there will be an address in obstetrics, by Dr. Frances N. Baker, Delaware Co.; papers on rational midwifery, by Dr. J. Milton Duff, Pittsburgh; what should be required of an abdominal surgeon, by Dr. M. Price, Philadelphia; suppurating ulcer of cornea, by Dr. Edward Jackson, Philadelphia; the report of Committee to Revise the Constitution of the Medical Society of Pennsylvania, by Dr. Wm. M. Welch, Philadelphia, Chairman; an address in mental disorders, by Dr. Alice Bennett, Norristown; the physiological and therapeutic action of sulphur, by Dr. John V. Shoemaker, Philadelphia; the application of dry heat by steam, by Dr. G. M. Shilito, Allegheny; errors of refraction developed by loss of accommodation, by Dr. G. H. Cline, Jersey Shore; report of Committee on Medical Examiners, by Dr. L. F. Flick, Chairman; a paper on la grippe or epidemic influenza, by Dr. A. B. Braumbaugh, Huntingdon; report of Committee to Confer with State Committee on Lunacy, by Dr. H. C. Wood, Chairman; report of Committee on Pharmacy, by Dr. J. W. Holland, Chairman. Unfinished business.

Medical Society of New Jersey.

The one hundred and twenty-fourth annual meeting of the Medical Society of New Jersey will be held in the Heath House, Schooley's Mountain, June 10 and 11, 1890, commencing at 4 o'clock P. M., June 10. The programme provides for Tuesday an

annual address by the President, B. A. Watson, M. D., Jersey City, "A Historical Sketch of Surgery," and discussions upon subjects presented at last Annual Meeting: (1) Does the Early Administration of the Salicylates in Acute Articular Rheumatism Prevent Heart Complications? The discussion to be opened by Dr. E. J. Marsh. (2) Hydrophobia. The discussion to be opened by Dr. W. P. Watson. (3) Is Diphtheria Primarily a Local or General Disease? The discussion to be opened by Dr. U. Selover.

On Wednesday the Third Vice-President, Dr. Geo. T. Welch, will deliver an address on "Fathers and Sons;" and essays will be read by Dr. E. L. B. Godfrey, on Endometritis, and by Dr. Orren B. Gross, on "A Few Rare Cases of Abdominal Surgery."

Further information may be obtained by addressing Dr. E. P. Cooper, Troy Hills, Chairman of the Committee of Arrangements, or Dr. William Pierson, Secretary of State Medical Society, Orange, N. J.

Conference of State Boards of Health and Quarantine.

The National Conference of State Boards of Health met in Nashville May 19. Delegates were present from nineteen States. Resolutions were adopted urging, in case of an outbreak of yellow fever, such co-operation in administration on the part of the Northern States as will confine the disease to the point of initial attack, in place of the expensive, unscientific and unsatisfactory so-called quarantine at distant State lines. A resolution was also adopted urging upon the health authorities of each State the importance of such administration of any quarantine they may establish as will furnish protection to and show due regard for the rights of States lying beyond them.

Regulating the Practice of Medicine in Washington, D. C.

A bill introduced by Senator Ingalls, by request, to regulate the practice of medicine in the District of Columbia was reported May 24 from the Committee on the Affairs of the District. It provided originally for the appointment of a Board of Examiners to examine applicants for license to practice, which should consist of fifteen members, five of them homœopaths. The Committee amended the bill, so as to give the eclectic school two representatives on the Board, leaving the regulars with a majority of one.

Trinity University a Diploma-Mill.

Dr. P. Ripley Bradbury, who calls himself Dean of Trinity University (of Vermont), was arrested in Wakefield, Massachusetts, May 28, on the charge of using the mails in aid of a scheme to defraud in connection with alleged bogus diplomas. This concern is a diploma-mill and was exposed by the *Boston Herald*, September 29, 1889.

The Census and Benefit Societies.

Any one interested in the sick-benefit, funeral-aid and death-beneficiary associations of the United States can help make the statistics of their organizations for the forthcoming census more complete and disseminate the knowledge of the good work they are doing by sending the names of such societies as they may know of, and the addresses of their principal officers, to Mr. Charles A. Jenney, Special Agent of the Eleventh Census, 58 William street, New York City.

Cruelty to the Insane.

Dr. Henry M. Wetherill, Secretary of the State Committee on Lunacy, has addressed a letter to the physicians in Pennsylvania, in which he says:

In view of the fact that in the past instances have occurred in various parts of this State of cruel or improper treatment of insane persons in charge of private parties, and that through the aid of physicians and others the Committee on Lunacy were enabled to extend material relief to such insane persons, and for the purpose of ascertaining whether any such cases exist at the present time to whom assistance might be rendered, the Committee would ask again for information of any insane who are secluded, badly treated, or require hospital care and treatment. The Committee will, on information, investigate any such case. Any communication will be, if desired, considered as confidential.

Dose of Tincture of Nux Vomica.

Mr. Jonathan Hutchinson (*Archives of Surgery*, Jan., 1890, p. 280) says he has for many years prescribed the tincture of nux vomica very freely indeed. He thinks it the best of all tonics, for it very rarely disagrees, and he has never known it to produce poisonous effects. He generally gives 10 minims three times a day to an adult, but often double that dose. He has given 5-minim doses to a child of ten, and has, for experiment, taken himself a single dose of 30 drops and realized no symptoms of strychnia poisoning whatever.

He believes the tincture of nux vomica to be a safer and more convenient form than any of the solutions of strychnia, and it has also the advantage of not exciting alarm in the patient. He says it may be taken for months together, and does not diminish in efficiency. Mr. Hutchinson has had many patients who have taken more than was intended and yet never so far with any serious ill result.

He relates two cases. A gentleman, 33 years old, took by mistake five consecutive doses of forty minims three times a day instead of ten minims during the same time, as ordered. The only ill result was that the head had been made to feel dull and the eyes heavy, as if he had been drunk over night. There was no muscular twitching.

In the second case the patient took forty minim doses of the nux vomica tincture. He continued it three times a day for four doses in succession. The symptoms were exactly as in the other case—a dull feeling in the head but no twitchings. He felt "wonderfully better for it." — *Medical Chronicle*, March, 1890.

Paracresotinate of Soda.

Paracresotinate of soda, a new antipyretic, is a fine crystalline powder and has a bitter although not unpleasant taste. It is soluble in twenty-four parts of hot water, and is not precipitated when the water becomes cold. According to the *Journal de Médecine*, March 23, 1890, doses of forty-eight to sixty grains produce no ill-effects upon healthy animals. Free perspiration is usually caused by it, but otherwise no effect upon the digestive functions or upon the temperature is noted. In about half an hour after its administration the urine will assume a violet hue, due to the action of chloride of iron, which may be traced in the urine for thirty hours. Paracresotinate of soda has been used in various febrile diseases incident to childhood, and in every case the drug proved itself of unquestionable value as a reliable antipyretic. Its action was especially beneficial in cases of acute gastro-intestinal catarrh, occurring in very young children. The following formula is recommended:

℞ Paracresotinate of soda . 15 to 30 grains.
Laudanum . . . . . 2 to 4 drops.
Cognac . . . . . 16 minims.
Simple syrup . . . . . 1½ fluid drachms.
Distilled water . . . . 7 fluid drachms.
Mix and give one teaspoonful every two hours.

As an antipyretic fifteen-grain doses given three times, one hour apart (for a child of twelve), would cause a fall of temperature of two to two and one-half degrees Fahrenheit within two to four hours.

Suture of Arterial Wounds.

Dr. Jassinowsky has published, as a graduation thesis in Dorpat, a series of experiments, made on animals, for the purpose of determining the conditions under which it is possible to stitch successfully wounds in arteries. He operated on horses, calves and dogs. The plan adopted was to dissect down to the artery, to open the sheath, and, after applying a clamp to the vessel, to stitch the wound with silk, the needle passing through the external and middle coats only; a reef knot was then tied, and the ends cut off close. When the clamp was removed the vessel was compressed, and all the fasciæ and skin incisions carefully stitched with interrupted sutures. The external wound was then sealed by means of photoxylin, a substance which, though first used by photographers, has recently been introduced into surgical practice as an improvement on collodion for sealing wounds. In all the cases operated on the wounds healed satisfactorily. When viewed from within, an arterial wound that has been recently sewn appears as a fissure of the intima filled up with blood-corpuscles, which form a minute thrombus, causing the sulci of the intima to disappear. Later on a cross section through the sulci gives the appearance of a funnel-shaped space filled with a homogeneous, horny substance. The endothelium is much augmented. In time the whole of

the coats at the wounded spot become thickened, and the elastic membrane is not to be found. Dr. Jassinowsky concludes that wounds not extending beyond half the circumference of a large artery, also longitudinal and oblique wounds, may be successfully sutured if antiseptic precautions can be thoroughly carried out, as was the case in all his experiments. When the vessel lies very deep, however, it is impossible to get at it sufficiently well to practice the delicate manipulation required in the operation. Of course, after a wound has occurred, the sooner operative measures are undertaken the better. He calls attention to the peculiar blowing or rasping systolic murmur always heard over a wounded artery, and the thrill which is perceptible to the touch, which constitute what is known as "Wahl's phenomenon," a discovery made by the eminent Dorpat professor, lately deceased, as a valuable diagnostic sign in cases where it is possible that arteries may have been wounded. —*Lancet*, Feb. 22, 1890.

Hydrophobia.

It is reported in the newspapers of June 2, that a farmer living near Petersburg, Lancaster county, Pa., died from hydrophobia on Saturday after two days' illness. He was bitten by a dog two months ago.

Seven children were bitten by a dog at St. Joseph, Illinois, May 29, and the dog died in a convulsion a few minutes later. The telegram recording the facts adds that "a madstone was applied to each of the children's wounds, and it adhered in each case." Notwithstanding this the patients were sent to New York to be treated by Dr. Gibier in the Pasteur Institute there, and they arrived in New York June 2.

NEWS.

—Dr. George H. Rohé has removed to No. 18 West Franklin Street, Baltimore, Md.

—Dr. James A. Henshall, of Cincinnati, has been appointed a Fish Commissioner for Ohio.

—Dr. John Aulde announces that he has severed his connection with the Medico-Chirurgical College, of Philadelphia.

—Dr. Kate W. Baldwin, a graduate of the Woman's Medical College, has been elected Resident Physician in the Philadelphia Polyclinic Hospital.

—According to the census of 1881, there were 131,618 lepers in all India. It is estimated that there must now be over 200,000 lepers in that country, most of whom are at large.

—The Charing Cross Hospital, London, was the site of a conflagration, May 4. Nobody was injured, and the damage, which was slight, was confined to the Victoria Ward.

—The University of Florida was founded May 30 at Tarpon Springs. Among the incorporators are Hamilton Disston, Jacob S. Disston, A. P. Stafford, F. H. Davis and Dr. Charles E. Sajous.

—On May 29, 1890, the Pennsylvania School for Feeble-Minded Children, at Elwyn, Pa., held its thirty-seventh anniversary. A new building was opened, which will accommodate 120 children.

—The medical faculty of the newly-founded University of Lausanne consists of seven ordinary professors, each of whom is to receive a salary of from 4,000 to 5,000 francs ($800 to $1,000), together with students' fees.

—It is reported that leprosy has increased to such an extent in Cape Colony, that a hospital for lepers has been founded on Robben Island near the African coast. In India legislation is urgently demanded for the suppression of leprosy.

—A committee has been formed at the Sorbonne for encouraging foreigners to study at the University in Paris. M. Pasteur is president. It is proposed to give special facilities to foreign students immediately on their arrival in Paris.

—A death has taken place at Tunbridge Wells, England, following the use of chlorodyne. The coroner's jury rendered a verdict of death by "misadventure," at the same time recommending that the sale of such powerful patent medicines be "restricted."

—It is said that Dr. A. G. Young, Secretary of the Maine State Board of Health, was recently suffering from a disease which had baffled his physicians, one of whom finally sent a sample of the wall-paper from the sick-room to a chemist for analysis. The examination revealed that the paper contained large quantities of arsenic. Since Dr. Young's removal from this room his recovery has been rapid.

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Clinical Lecture.

REMOVAL OF UTERINE APPENDAGES.—TWISTING OFF A FIBROID POLYPUS.—FIBROID TUMORS.

BY E. E. MONTGOMERY, M. D.,
PHILADELPHIA.
PROFESSOR OF GYNECOLOGY, MEDICO-CHIRURGICAL COLLEGE; OBSTETRICIAN TO THE PHILADELPHIA HOSPITAL.

Removal of Uterine Appendages.

Gentlemen: From this patient I removed the uterine appendages in this amphitheatre one week ago; I removed the sutures yesterday, and found the wound had united perfectly by first intention. The result in a private hospital could not have been more satisfactory. The temperature has at no time since the operation gone up higher than 100.2° F., and for these delightful results I feel that I cannot too highly commend the antiseptic precautions that were exercised in the preparation of this room, the attention to details during the operation, and the faithful care of the Resident Physician and the nurse in the after treatment.

Twisting off a Fibroid Polypus.

The patient whom I bring before you today is forty years old. Her father died of pneumonia. She has two children. The elder is living, and the younger died when he was five years old. She denies any venereal history. Some years ago she fell down a flight of twelve steps and at her next period she flooded, and from this time there began a very perceptible development in the size of this umbilical hernia. Since then she has often had severe uterine hemorrhages, or excessive menstruation. This is greatly increased by any exertion. Ten days ago she took cold and had pain in her abdomen. She came here about the fifth day of her illness. The pains were differentiated from labor pains because they were continuous and

not periodic. Examination disclosed a mass protruding into the vagina from the cavity of the uterus and she had a profuse discharge which was quite offensive. The temperature went up, at once, to nearly 109° F., and stayed at that point. This mass, protruding into the vagina, has been rapidly increasing in size. The neck of the uterus encircles the circumference of the tumor. Its character is hard to determine from conjoined manipulation, because the patient is so fat. To arrive at a correct diagnosis we must summon to our minds the diseased states which are likely to produce such symptoms. These conditions would be either a submucous uterine fibroid or an inversion of the uterus.

There is no reason to believe that this is a part of a placenta or of the product of conception, so that such an idea can be dismissed at once from our minds. Inversion of the uterus may occur as a result of parturition. A woman in labor may, when the cord is dragged upon in order to deliver the placenta, suffer inversion of the uterus. This accident used to be comparatively common in the days of midwives, or when the placenta was delivered by traction on the cord. Again, inversion may result from a growth in the fundus or at either angle of the uterus. The dragging down which such a growth would cause results in an inversion of the womb. Therefore, always examine everything carefully. From a sarcoma of the uterus the muscular walls of the organ may lose their tonicity, so that there may be left no power to resist the tendency to inversion.

The question that is now asked is: How is one to find out when the uterus is really inverted? First, by conjoined manipulation which would show a cup-like depression instead of the rounded top of the uterus. If this method fails, supplement it by rectal examination, and, in order to impress its importance upon you, I shall relate to you the following example. A friend of mine who had had a large experience was called to see a woman who had a large mass protruding from the uterus into the vagina. Conjoined manipulation disclosed a depression at the normal position of the fundus uteri. It was diagnosed inversion. The consulting physician attempted to get the organ back in position by introducing his finger into the cup-shaped depression through the rectum, his purpose being then to draw down upon the womb while the other hand in the vagina pushed the displaced body of the organ back into position. But he was surprised to find that his finger passed over a retroverted uterus, which a preliminary rectal examination would have disclosed.

The cup-like depression he felt in front was due to the traction of the pedicle of a fibroid polypus attached to the anterior wall of the uterus, while the tumor hung in the vagina. Therefore, let this example impress upon you that you should always examine through the rectum, especially to reach the posterior part of the uterus.

I now introduce my finger and find that the mass fills up the vagina pretty well. I next pass my finger well into the uterus and pass it well around in that organ. The pedicle of the tumor becomes smaller as I get nearer to its base. This might be due to a constriction by the neck of the womb. But the facts that she has hemorrhage, comparatively good health and a tumor, indicate to me that she has a fibroid growth.

The next question is: How is this fibroid tumor to be removed? The pedicle may be either large or small. If the base be broad, it is called a sessile tumor; if the base be small, it is called a polypus. In case of a tumor like this the method of its removal depends on the size of its base. If the pedicle is small it can be twisted off. Here it can be seen that the tumor is sloughing. If I had not been wanting to show it to you, I would have removed it yesterday. This it is, that has been the cause of such high temperature. It is so fragile that when I try to get a good hold on it with my volcellar forceps it easily crumbles under the pressure. But finally I do obtain a good hold and after a few twists the tumor comes off. Its weight is about twelve ounces.

Fibroid Tumors.

Fibroid tumors may be divided, histologically, into the following varieties: first, the soft fibroid, in which the muscular tissue predominates, hence called myomata. The tissue is similar to that of the uterus, and presents no line of demarcation. The growth is rapid, sometimes attaining to enormous size.

Second, the hard fibroid, in which the fibrous tissue predominates. The tumor grows slowly or is stationary and is completely surrounded by a capsule. All fibroid growths originate in hypertrophy of the uterine muscular tissue as a result of local inflammation.

The tumors are divided, according to situation, into: first, submucous, situated

beneath the mucous membrane. In these hemorrhage is a marked symptom, owing to the obstruction of circulation in the uterine mucosa. Second, mural or interstitial, when hemorrhage is also a marked symptom, particularly when the tumor protrudes upon the cavity of the organ. Third, subperitoneal; the tumor in its growth being forced out of the uterus beneath the peritoneum. The same uterus may present all the varieties of fibroids and they may vary in size from that of a cherry to growths exceeding one hundred pounds in weight. The symptoms vary according to their locality. The nearer they are to the mucous surface, the greater is their hemorrhage. A very small tumor in the cavity of the uterus will frequently give rise to frightful hemorrhages.

The following instance will exemplify this principle. A woman suffered from frequent hemorrhages during the last two years. The uterus felt irregular and nodular, and I thought that malignant disease was present; yet the trouble was not in the cervix, but in the body of the womb. As it was late in life, I feared the worst, so that I did not dilate the cervix and examine into the cavity of the uterus, but I took out the uterus itself and, to my surprise, I then found that the hemorrhage had been due to a small fibroid tumor, no larger than a marble, situated near the fundus. There was, however, a fibroid degeneration of the uterine walls, so that later she would have suffered from a return of the bleeding, and in time would have had to undergo some operation for its arrest. She is now doing well. The substance obtained from the endometrium by curetting should always be examined under the microscope.

When we meet with fibroid tumors of the uterus how are they best to be removed? First, when the tumor is submucous it would be best grasped with a pair of stout polypus forceps, drawn down, and then twisted off; provided its base be not too broad. This is the best method in ordinary cases, as by the twisting we are most apt to get off all the tumor and less apt to cause bleeding; second, a wire ecraseur with a good stout single wire may be thrown around tumor's pedicle, whether it be large or small; third, the tumor may be well drawn down, and then its pedicle clipped with a pair of curved scissors. This method is applicable when the base of the tumor is small.

Some years ago I met a patient who had been treated for two years, for hemorrhage without success and, what is more serious, without an examination. I thoroughly examined her, and after splitting up the cervix on either side to the lateral fornices, enucleated from her uterus a fibroid tumor by means of my finger and a Thomas's spoon-curette. It was about the size of a hen's egg, and after it was separated from its bed it was with difficulty delivered through the narrow internal os. When the tumor is too large to remove entire it may be cut away in pieces.

A mural tumor may cause a patient long suffering before the walls of the womb become thick enough to admit of its separation. The old plan of cutting down through the capsule, and then giving ergot, exposed the patient to gangrene and blood poisoning. A better plan is to split up the cervix, and then enucleate the tumor with the fingers and a spoon-curette.

COMMUNICATIONS.

IS CONSUMPTION CONTAGIOUS?[1]

BY THOMAS J. MAYS, M. D.,

PROFESSOR OF DISEASES OF THE CHEST IN THE PHILADELPHIA POLYCLINIC.

Mr. President: In casting a retrospect over the two years which have passed since our last meeting I am quite certain that you will agree with me when I say that the task of reviewing in a short address all the work which has been done in the name of hygiene during this time would be a prodigious if not a profitless undertaking, and that you will pardon my confessed inability to fulfil the strict letter of the law if I confine my remarks to the consideration of a special department of this branch of medicine, and thus make an effort to compensate in concentration that which I lack in generalization.

The theme to which I shall invite your attention to-day is that of *The Relation between Artificial Inoculation and Pulmonary Consumption.* The study of pulmonary consumption, like that of cholera, yellow fever, leprosy and many other diseases, has been approached from two directions—(1) from the experimental or laboratory side, and (2)

[1] The Address in Hygiene, delivered before the Pennsylvania State Medical Society, at Pittsburgh June, 1890.

from the clinical side. It must be admitted on every hand that these are legitimate and scientific methods of investigation; and, whatever the nature of their results may be, one thing is perfectly clear, and that is, that being the products of genuine processes, they corroborate each other, and must hence be accepted. Under such circumstances one side cannot be absolutely and entirely right, and the other absolutely and entirely wrong, but both must be entirely right, and must be complementary to each other. What then has each method contributed to the study of this disease?

In 1865 Villemin produced tuberculosis in rabbits by inoculating them with tuberculous material. This has since been abundantly confirmed by other observers, and in 1882 Koch gave the study of tuberculosis a fresh impetus by demonstrating that a specific micro-organism—the tubercle bacillus—is associated with the tubercular virus. When this organism is injected subcutaneously into the bodies of animals tuberculosis is generated. Tuberculosis may also be induced by feeding tubercle virus to animals, or by compelling them to inhale the same. It must be stated, however, that artificial tuberculosis is most readily induced by the first, and least readily by the last two methods. Rabbits and guinea-pigs are more susceptible to it than cats and dogs, and on the whole the disease seems more communicable when the virus is introduced into the abdominal cavity than into the eyeball.

These facts show very conclusively that tuberculosis is transmissible from man to animals through inoculation, and they have naturally given rise to the almost universal belief that pulmonary consumption is a contagious disease. The health authorities of the State of Pennsylvania and of a number of the large cities of this country and of Europe have been moved to adopt measures which have in view the suppression of this disease on the score of its contagiousness.[1] By common consent it must be admitted that this is a serious matter; for if this belief is correct these officers are discharging a most sacred and responsible duty, in which they should receive the encouragement of every loyal citizen. If it is erroneous it is equally clear that these officials not only perpetrate a terrible wrong on those who are afflicted with this disease, but also waste the time and energies of the people by misleading them in regard to the true nature, cause and prevention of consumption.

Let us see, then, whether clinical medicine is able to throw any light on the truth or falsity of the contagion doctrine. In discussing this side of the question I will start out with the fundamental and self-evident proposition that, if other things are the same, those who are most exposed to a contagious disease are most liable to contract it. This may be very aptly illustrated by some of the accidents due to railway travel. While only a portion of those exposed to railroad accidents are injured or killed, it still remains true that the mortality rate from such casualties is higher among those who travel in cars than among those who do not. This principle holds true in the case of small-pox, measles, etc., and is the *experimentum crucis* in the case of consumption, if, like them, it is a contagious disease. Now those who hold to the contagion doctrine say that the tubercle bacilli are the elements on which the contagiousness of consumption depends—*i. e.*, they are the carriers of the disease from person to person. It has been demonstrated that these germs abound in localities where the disease exists, and are absent where the disease is not found. Such localities are hospitals for consumption and the homes of those who suffer from the disease. It is inevitable, therefore, that physicians, nurses and attendants of consumption hospitals, and intimate relatives of consumptive patients are more subject to the disease than those who are but seldom exposed. What are the facts?

Physicians who are constantly exposed to consumption are much less subject to it than are butchers, coopers, locksmiths, etc., who scarcely come in contact with it except by chance. The statistics of the Bumpton Hospital for Consumption, in London, show that during a period of thirty-six years not a single clearly-authenticated case of consumption arose within its walls among its twenty-nine physicians and assistant physi-

[1] The Board of Health of the State of Pennsylvania in a recent circular (No. 26, page 6) says: "Painful as the conviction that he is liable to be a dangerous source of infection to his family and friends, as well as to the public, must be to the sufferer from phthisis, it must be forced upon him. This is the duty of his medical adviser." Further precautions given are that under no circumstances shall his expectoration be allowed to dry before it is destroyed, and that he must scrupulously avoid spitting on his handkerchief, on the floor, or on the ground, and instead must use a small spitting-flask.

cians, its one hundred and fifty clinical assistants and its one hundred and one nurses, of which there existed a health record. The statistics of Friedrichshain Hospital, in Berlin, recently gathered by Dr. Fürbinger, show that during a period of sixteen years out of 459 male nurses there were 4 (two of whom were tuberculous before entering); of 339 female nurses there were 2; of 83 physicians there were 3 (one of whom entered with the disease) who became consumptive. Of 108 Victoria sisters, who were engaged as nurses in the same institution from two to five and a half years, only one became consumptive.

These statistics are also strikingly confirmed by those which show the influence of the Consumption Hospital of Görbersdorf, in Germany, on the death-rate from phthisis among the inhabitants of that town. Dr. Brehmer, who had been in charge of that institution for twenty years, says that since the year 1854 more than ten thousand consumptives resided in the hospital, who daily walked the streets of the town and commingled with its inhabitants. The latter were, therefore, continuously respiring an atmosphere more or less laden with tuberclebacilli emanating from the dried expectorations of these consumptive visitors; yet, in spite of these favorable conditions for contagion, the mortality is 50 per cent. less among the Görbersdorf population since than it was before the establishment of the hospital. These figures are especially interesting in view of the assertions frequently made that the healthful influence of mountain resorts is impaired by the infectiousness of the exhalations and expectorations coming from consumptive people who go there for relief.

Then, again, it may also be said that it is not true, as is so often asserted, that the attendants of hospitals, where other diseases than consumption are treated, enjoy a similar immunity from disease. This is well shown, at least so far as typhoid fever is concerned, in the records of the Massachusetts General and the Boston City Hospitals. In the former, from 1882 to 1887, no less than seven, and probably eleven; and in the latter, from 1884 to 1888, twenty-eight cases of typhoid fever occurred among the medical attendants and employees of these institutions.

Similar negative testimony is obtained from the statistics of the contagiousness of consumption between husband and wife. Dr. Schnyder, of Switzerland, gives a record of 844 cases of consumption occurring among married people. In 445 of these the husband only, and in 367 it was the wife only was consumptive, while in thirty-two both husband and wife were affected: showing that in 812 instances there was not the least proof of contagion. Is there any reason to believe that the disease originated through contagion in the 32 cases? Dr. Schnyder says not, for four of these cases came to him fresh from the matrimonial altar affected with the first signs of consumption, and he is of the opinion that in spite of all warnings, young people are frequently married while suffering from the disease. The late Dr. Flint gives the history of 670 cases of consumption which affected husbands and wives, and among these there were only five in which there was a suspicion that the disease might have been contracted from one or the other; but it is certain, he says, that the instances in which transmissibility may be suspected can also be accounted for as coincidences in a disease which is so prevalent as consumption. M. Leudet shows, too, that out of 112 widows and widowers, whose consorts died of consumption, only 7 (four women and three men) became phthisical; hence there remained 105 who lived intimately with tuberculous people without contracting the disease.

About seven years ago a committee of the British Medical Association distributed circulars of inquiry among the members of the profession in regard to the liability of contagion between husband and wife or between members of the same family, etc. Ten hundred and seventy-eight answers were received. Of these 778 were negative, 39 doubtful, and 261 were affirmative.

The large number of affirmative answers which have been received in this investigation are taken as proof of the contagiousness of this disease. This evidently is a mistake, for the aim of the inquiry was not to ascertain the number of absolutely well-demonstrated cases in which contagion was present or absent, for this would obviously have been an impossibility, but it was to collect the individual opinions of a large number of physicians as to whether they believed the disease to have been contagious in certain cases or not; and this resulted in 778 negative and 261 affirmative votes. Are we to assume, therefore, that the 261 opinions are of more weight than the 778 nega-

tive ones, and thereby imply that the former only had the fortune or misfortune of meeting cases which originated through contagion, and the latter had not? Is it not more probable that all of them witnessed cases around which hung a cloud of suspicion that they might or might not be contagious, but that 778 did not consider the proof strong enough to outweigh that which, in their minds, was in favor of other and more powerful influences in the causation of the disease?

Now, in converging the evidence of the two sides of this question there appears to be an irreconcilable contradiction. The experimental testimony points decidedly towards contagion, while the clinical testimony just as decidedly opposes such an opinion. It must be remembered, however, that the first kind of evidence pertains only to experiments on the lower animals, and, in so far as it applies to the human body, rests entirely on a theoretical basis. It establishes the fact, however, that when the tuberculous virus is introduced under the skin tuberculosis follows. On the other hand, clinical evidence utterly fails to show that such inoculation occurs in practical life; nor does it show that those who are most exposed to the bacillus tuberculosis, as it is disseminated through the atmosphere, or through food, are more, or as much, liable to contract the disease as those who are not so exposed.

When the apparent antagonism between these two kinds of testimony is thoroughly sifted it will be found that, so far as the origination of pulmonary consumption is concerned, laboratory experiments are absolutely silent. All that they show is that the disease may be transplanted by a certain method after it has been called into existence by other causes. Clinical medicine does not, perhaps, define the exact mode of the origin of consumption, but it positively asserts that it does not arise by being transmitted from person to person through contagion. The great difficulty in the discussion of this problem has always been a neglect to distinguish between the origin and the transplantation of consumption. These two phenomena are actually treated as if they were one and the same thing, yet the original genesis of a new form of life, whether normal or abnormal, differs as much from the artificial transplantation of the same as sunlight differs from moonlight.

The truth of this is strikingly illustrated in skin grafting. Particles of skin are planted on denuded surfaces and become thoroughly incorporated with the bodily tissues, yet such an artificial procedure gives us no knowledge of the origin and mode of genesis of the skin that is transposed. In cow-pox vaccination—another example of the same kind—a new form of life is not only transplanted to the body, but the new form of life has a deep, modifying influence on the whole organism; yet neither the operation nor its products gives us the remotest idea as to the source of the virus against the action of which it protects the body. Another exemplification of this is found in the vegetable kingdom. It is well known that a graft is capable of communicating the peculiar properties of the fruit, color of leaves, etc., of the tree or plant from which it is taken, to the whole tree or plant on which it is grafted.

Dr. Darwin, after relating a number of cases in which grafting or budding of the variegated jessamine, the oleander, and the ash, infused their peculiar characteristics into the stocks which received them, states[1] that "many authors consider variegation as the result of the disease; on this view, which, however, is doubtful, for some variegated plants are perfectly healthy and vigorous, the foregoing may be looked at as the direct result of the inoculation of a disease." Dr. Masters, in an able contribution to the subject,[2] says: "Cases have been observed where, from the stock *below* the graft, fruits and flowers of the same appearance as those borne on the scion have made their appearance. This has been observed in the case of the pear grafted on the mountain ash, and in other cases." In regard to the transmission of variegated leaf properties through grafting, Dr. Masters states that "a year or two since a beautiful *Abutilon*, with leaves mottled with yellow, was introduced into our garden. It was very desirable that this should be propagated as largely and as speedily as possible. The scions of the variegated *Abutilons* were grafted on to green-leaved stocks of other *Abutilons* by many nurserymen on the Continent and in this country, and it was soon found that the grafted plants produced variegated leaves from the stock. That the variegation is really due to the influence of

[1] Animals and Plants under Domestication, Vol. I, p. 474.

[2] Grafting: its Consequences and Effects, *Popular Science Review*, April, 1871, p. 149.

the scion is shown by the fact that if the graft becomes separated from the stock, the leaves subsequently produced from the latter were wholly green, as before the grafting, and even the variegated leaves originally produced lost their mottled character."

Let us then for a moment imagine the feelings of the experimental physiologist whose mental vision of the source of plant-life is limited to a knowledge that grafts have the power of infusing the peculiar color of their leaves, the nature of their fruit, the odor of their flowers, and their very fibre and constitution into the stock upon which they are grafted, on being ushered into a beautiful grove of trees, or into a garden of flowers. Would he not in his ecstasy at once say to himself, it is clearly demonstrated that grafts possess the power of transmitting these properties to the plant-stock, therefore it must follow that all this diversified wealth of vegetable form and beauty is the product of inoculation by grafting? Would not his analysis be as wise and as justifiable as that of the experimental pathologist who announces that because pulmonary consumption may be occasioned by artificial inoculation, nature pursues a similar course in producing the disease? I do not by any means ascribe to myself infallibility of judgement, but I appeal to you, gentlemen, whether the mental processes employed by both the contagionists and the believer in the creative power of vegetable-grafting, are not entirely identical in nature and in character?

Take away the inoculation experiments on animals and you destroy the corner-stone on which those who believe in the communication of consumption from man to man repose their belief. I am not unmindful that there are many who deny this, and who claim that their faith rests on certain and well-defined evidence of contagion. But I never yet saw a case of this kind reported which on thorough examination did not turn out to be a case of misplaced confidence, so far as positiveness is concerned. Probability exists sometimes, but this does not constitute positive proof. Nor need any one wonder at this, for it is not a question which is susceptible of decision by an appeal to specific individual instances, either for or against contagion, as has been maintained throughout this paper. But it is, as Dr. Oldendorff has recently expressed it, in a discussion of this same subject before the *Verein für Innere Medicin* in Berlin, a question which must be determined by statistics; and statistics, as we have seen, give no uncertain tone in response.

When direct statistical evidence, such as that submitted in this paper, shows that among one thousand six hundred and twenty-six married persons, where consumption existed either in the wife or in the husband, only the same disease occurred in the other partner in only forty-four instances, the certainty of non-contagiousness is placed beyond the shadow of a doubt. Here we have the picture of more than 1,600 people who were subjected to a much closer intimacy than that which obtains in any other condition of social life, occupying for years the same bed at night and the same room by day, and yet only forty-four or 2.73 per cent. of the consorting partners became fellow-sufferers. Truly, if consumption is contagious, it can only be so in a very slight degree. But can the source of these forty-four cases be traced to infection? Hardly, for in a disease which is as general as consumption, it is highly probable that many of them carried within their systems a tendency to the disease, which only awoke out of its slumbering condition and asserted its power when the many varied burdens and demands of family life began to exhaust the vital resources. Again, it may be true, too, that some suffered from an active or a latent form of the disease before they were married. Indeed Dr. Schnyder, who contributes the largest number of these cases, states distinctly that four of them came to him fresh from the matrimonial altar, victims of the disease in its incipiency.

Moreover the contagiousness of consumption is an old idea, and all the measures of prevention which are receiving serious consideration from those who believe in it at the present time were tested with disastrous results by the inhabitants of Naples more than a hundred years ago. They reasoned as follows: If consumption is contagious, then the separation of the afflicted from the well is the only logical remedy, and for sixty-six years—from 1782 to 1848—they enacted and enforced the most rigorous laws that have ever been introduced for the suppression of any disease. Every physician was fined $180.00 for the first neglect to report a case under his observation, and was banished for ten years for the second offense. In every case the ceilings, walls, floors, doors and windows of the rooms in which consumptives died were torn out, and burned,

and new ones were substituted. The bedding and furniture shared the same fate, and such dwellings were not inhabitable for one year. In consequence of these stringent laws the family with consumption in its midst was shunned and driven to want, and the patient was regarded as a public pest. Houses in which consumptives died came into disrepute, and many of their owners were turned into beggars. The sick were neglected and left to die inhumanly away from their families and friends. The intolerance of all this heroic treatment becomes more evident when we find that it had no influence whatever in diminishing the death-rate from this disease in Naples, and in other localities where it was administered. But, however much these colossal and outrageous crimes, performed under the cloak of justice and of humanity, may shock us, they demonstrate how earnestly the Neapolitans believed in the contagiousness of consumption. If they failed to suppress it, how much can the modern contagionists expect to accomplish by requiring that consumptives should cease to spit on floors, ground and pavements, and use fixed or portable spittoons instead. Indeed, when this advice is compared with the resolute and vigorous efforts of the unfortunate and deluded Italians, it seems more like the vaporings of a child's brain than the outcome of thoughtful and sober reflection; and it is sad to find men at this late day who are willing and anxious to repeat the superstitious follies and foibles of a century ago.

From all that has been said it seems perfectly plain to me that pulmonary consumption is not contagious in nature, and that its genesis has nothing whatever in common with that of small-pox, wound fever and other diseases which arise through infection. The works of Villemin, of Pasteur and of Koch have vastly enriched the science of experimental pathology, but they have absolutely no bearing on the natural origin of pulmonary consumption or on the question in dispute. No theory of any disease can be true unless it also points out the path of prevention and alleviation of that disease. Has the bacillus theory, which is so popular at the present day, rendered any such service to medical science? Has it lessened the mortality rate of this disease in the past, or does it give any assurance of doing so in the future? Can any one claim that it has not been accorded a fair and generous hearing? Was ever a medical theory launched under more favorable auspices, or received with greater enthusiasm? The medical profession, prompted by the hope, long deferred, that a knowledge of the tubercle bacillus would accomplish for phthisis what the germ idea had done for practical surgery, eagerly and frankly accepted it, and thoroughly proved it; yet he who takes a calm and impartial retrospect of the whole situation must own that never was an *ignis fatuus* pursued which left more promises broken and greater anticipations unfulfilled than this bacillus theory, so far as it stands related to the prevention and treatment of pulmonary consumption.

FUNCTIONS OF THE SPLEEN.

BY N. M. GEER, M. D.,
JEDDO, OHIO.

The functions of the spleen is a subject concerning which there has been much discussion and many theories have been advanced in regard to it; none of the theories, however, having stood the test of physiological investigation. Any statement, therefore, that one may make on the subject will doubtless be received with caution and subjected to a rigid scrutiny before being accepted. This I expect; and I only ask the reader to approach the subject in a spirit of fairness, and to give due weight to the evidence advanced. I shall endeavor to establish my position by means of facts known and accepted by the medical profession.

I will first make a general statement, that the spleen is a temporary depot, or place of deposit, in which certain excrementitious and waste products of the system are stored until they can be removed from the system by the proper organs; or, in the case of materials not excrementitious in character, reappropriated in another form. Incidentally to the above, it is a place in which red blood corpuscles undergo disintegration and white blood corpuscles are formed.

That the spleen has important functions cannot be doubted; its large size, complex structure and abundant blood supply precluding any other idea; for nature does not deal in superfluities, and the organ for which there was no use would soon, like the alveolar process from which the teeth are extracted, atrophy and disappear. The utility of the purposes above named will also be apparent; for, in the varying conditions of

life, the truly excrementitious principles are frequently produced in quantities which can not at once be eliminated from the organism, the process of elimination being slow. It is, therefore, a wise provision of nature that these materials should be temporarily removed from the general circulation, where they might do much harm, and placed in a proper receptacle where their presence will be innocuous or at least *less* harmful than elsewhere.

But in what manner is this done? Presuming that my readers are all medical men and anatomists, I will not go into anatomical details, but content myself with the statement that the blood in the spleen flows from the smaller arteries to capillaries, and from the capillaries into minute spaces formed by branching endothelial cells. Here it comes into immediate contact with the spleen pulp.

In this soft and sticky mass the blood is rid of certain materials. All substances in imperfect solution are filtered out, as it were; and doubtless many others are removed by chemical changes and combinations, which we do not understand definitely as yet, but which offer a favorable field for future investigations. Red blood corpuscles, also, which are of a low grade of vitality, stick fast here and undergo disintegration. The red blood corpuscle has doubtless, like other anatomical elements, a certain limited period of existence. When this is fulfilled, it perishes in the spleen. It is not, as formerly stated, destroyed there, but merely perishes there from lack of vitality. For some of these latter statements I claim no originality, these facts having been demonstrated and announced by Frey, Stowell and other histologists. A similar opinion seems also to have been held by Austin Flint, judging by statements made in his work on the *Practice of Medicine*.

What evidence have we that our statements are correct? The amount of various chemical ingredients contained in the blood of the splenic artery, as compared with that of the splenic vein, is found by numerous experiments to vary considerably, the greater quantity of the given element being sometimes contained in the artery and sometimes in the vein. This shows that these elements are at times stored in the spleen, and again, under different circumstances, taken up and removed by the blood current. The spleen pulp contains at all times most of the excrementitious matters of the body. This is especially true of cholesterine and of uric acid, both of which exist at all times in considerable quantities in this pulp. There is, of course, a variation in the actual quantity of these elements present, as they are eliminated from the system, the former by the liver and the latter (mostly as urates) by the kidneys. The number of red corpuscles in the blood is diminished in passing through the spleen, showing conclusively that some of them cease to exist in their previous form in that organ. In poisoning by chlorate or nitrate of potassium, or by other articles producing a similar injury of red corpuscles, the injured corpuscles accumulate in the spleen. In malarial diseases, while there is some difference of opinion as to the manner in which the blood changes are caused, the fact remains that a destruction or diminution of red blood corpuscles occurs, anemia being present in a noticeable degree in every case in which the disease has any material duration. And we find in these diseases a uniformly occurring enlargement of the spleen.

In septicemia, a disease accompanied by commencing disintegration of red corpuscles, the spleen is enlarged. The spleen enlarges also, in nearly all infectious diseases, in which we have the best of reasons to believe that injury of blood corpuscles occurs.

The facts enumerated seem to me competent to show that the spleen removes from the circulation red corpuscles which are so much injured by any morbid process as to be incapable of continuing to perform their normal functions. The formation of white corpuscles in the spleen may be regarded merely as an incidental circumstance, the materials and conditions for their development being present here in a high degree; and observation teaches us that these bodies are found wherever and whenever the proper materials and conditions exist.

But it has been urged, in opposition to every theory advanced as to the functions of the spleen, that this organ may be extirpated and life be prolonged indefinitely. I reply that, if the principal excretory organs (liver, kidneys, skin) be in a normal condition, they may dispose of the excrementitious principles referred to, with sufficient rapidity to prevent any injurious accumulation of them in the system; and the disintegration of red corpuscles would probably occur also in the adenoid tissues of the body. But the individual who was without a spleen, would, in my opinion, be subject to the development of cholesteremia and uremia, and of

hematogenous jaundice, from causes which would be insufficient to produce the same conditions in a person still possessing a spleen. The observations of cases in which the spleen has been extirpated have been as yet, too limited to settle this point positively.

Much more might be said in support of the views I have just advanced; but, to economize space, I will leave the subject for further investigation at the hands of others, first, however, referring to the practical application of this theory; for, if it has no practical application, our time has been wasted. In all cases in which enlargement or disturbance of the spleen can be ascertained, it may usually be taken to indicate:

1. That there is a disturbance of the action of some excretory organ; or

2. That a morbid process destructive of red corpuscles is occurring.

The remedy would be to restore the action of the delinquent organ, or to stop the morbid process if possible.

UNDECIDED POINTS IN THE ELECTRICAL TREATMENT OF FIBROID TUMORS.

BY G. BETTON MASSEY, M. D.,

PHILADELPHIA.

An increasing experience with the Apostoli method of treating fibroid tumors of the uterus has clearly demonstrated to me its great value; there are, nevertheless, certain important details connected with it yet undecided, the elucidation of which would be of great service to those using the method. We are, for example, yet uncertain as to the relative value of puncture and intra-uterine applications. During the past year I have treated a large number of these cases, invariably with some degree of good result; but I am not yet in a position to lay down hard and fast rules for the selection of either method in a given class of cases. The year's work included two tumors that disappeared completely under the intra-uterine treatment,[1] which, with many other cases of shrinkage and symptomatic cure, has led me to continue to give preference to this form of treatment. One of these cases of complete disappearance by apparent absorption was a large firm fibroid, completely filling the pelvis and extending up into the abdominal cavity. The other case was a mere projection from the right fundus, and was outlined with some difficulty, owing to the thickness of the abdominal walls. Both patients are now not only symptomatically well but absolutely free from growths or enlargements of any kind.

Electro-puncture has been used in several cases that were either of the distinctly subperitoneal variety or had inaccessible cavities, but the number has been by no means sufficient to establish any results capable of a relative comparison; for, although the cases all presented some improvement, several possessed disturbing factors, such as a concurrent syphilitic taint, that impaired the value of the results. Enough has been learned of this procedure, however, to convince me that it is by no means dangerous in careful hands. The procedure that I have adopted has varied somewhat from that laid down by Apostoli. A solid needle is used, which is insulated to within a centimeter of the end, in such a manner that the insulated and un-insulated portions present the same diameter. This permits the burying of the bare part of the needle in the growth and the confinement of the directly destructive action to the morbid tissue. The track of the needle through the overlying healthy tissue having been protected from cauterization, it readily heals by first intention, making the application a submucous one. The value of this form of puncture deserves earnest investigation.

Another point of much importance is the question of dosage. For the intra-uterine applications the most useful range is from 25 to 150 milliampères, with a preference for the lower figures. For puncture by the submucous method, from 100 to 200, with a preference for the higher figures. Beyond these figures the results have not seemed to me to correspond with the increased currents.

The electrical treatment of cystic fibroids is well-known to be inadvisable, unless the value of drainage in connection with the treatment is established; and this introduces the necessity of excluding the presence of cysts in apparently solid tumors. The discovery made at times by operators, that small cysts exist without being suspected, has been used as an argument against an electrical treatment. Through the close

[1] For full details of these cases see *Electricity in Diseases of Women*, 2d edition, pp. 144 and 154.

observation that I have been enabled to make of all kinds of fibroid tumors under treatment in my private Sanitarium, I have discovered that cystic tumors invariably show a diurnal variation of temperature. This variation may be of only one degree, Fahrenheit, but it is in my experience significant of the presence of a cavity in a degenerating fibroid and of the inadvisability of promoting the degenerative process without giving exit to the contents. I have recently punctured and aspirated such a cyst through the anterior abdominal wall with success.

With this exception all forms of uterine fibromata have been demonstrated to be amenable to the Apostoli method; and, as its power to cause complete disappearance of the denser and harder tissue of old cases is naturally limited, I make a plea for the early diagnosis and treatment of this disease —a plea that seeks the restoration of the patient to comfort and health, without incurring danger and with all of her organs and functions intact.

Hysterectomy and oöphorectomy for fibroid tumors I leave to the judgment of those desiring to perform the operation. Only one case in which I have used electricity has subsequently been operated upon: a dispensary patient, who, I am told, only reluctantly consented to the operation instead of seeking it. The result was death on the fourth day after the operation; and this only confirmed in my mind the adverse views that have been expressed of late by many broad-minded men engaged in abdominal surgery.

1706 Walnut Street, Philadelphia.

SUBMUCOUS RESECTION OF CARTILAGE IN DEVIATIONS OF THE NASAL SEPTUM.[1]

BY JOHN B. ROBERTS, M. D.

There are cases in which simple division of the nasal septum, with the use of pins to hold the divided partition properly in place, is not efficacious, because the cartilage contains too much tissue to be held in a straight line after its abnormal curves have been corrected. It is easily understood that, since the shortest distance between two points is a straight line, a curved or bent septum forced into a straight line by dilatation of the nostril or by incision, has a tendency to reproduce the curvature within a few weeks after the operation. In such cases it is usually necessary to remove a portion of the septal cartilage, if permanence is to be given to the straight position obtained by the operation. This is sometimes done by excision of a portion of the septum by means of a nasal punch or a knife, thus leaving an opening between the two nares. The operation which I describe, and which is a resection of the cartilage beneath the mucous membrane, makes no opening between the two nares and yet gets rid of the surplus septal tissue.

The operation should be commenced by dilatation of the occluded nostril with the finger or a pair of dilating forceps; the mucous membrane covering the septum of the occluded side is then incised by means of a blunt tenotome. The incision should be a long curved one, with the convexity towards the floor of the nostril, and should be commenced as far back as is necessary to make a flap large enough to uncover the curved piece of cartilage. A flat, dull instrument is then slipped under the mucous membrane and used to separate this membrane from the triangular cartilage and vomer. A finger in the opposite nostril gives rigidity to the septum during the manipulations. After the large flap of mucous membrane has been elevated a blunt-pointed tenotome is thrust under the mucous membrane, which hangs down like a curtain, and is used to cut out an elliptical portion of the septal cartilage corresponding in size with the angle or curve in the deviated septum that the surgeon desires to remove. During this stage of the operation the little finger of the other hand in the opposite nostril is used to prevent perforation of the mucous membrane in the nostril opposite that of operation. A blunt instrument is then thrust through the incision in the cartilage and used to separate the portion of cartilage, which is to be taken out, from its mucous membrane on the side opposite the occluded nostril. The elliptical piece to be resected is then lifted out with forceps and the large flap of mucous membrane permitted to drop in place like a curtain. One or two sutures of catgut may then be put in the mucous membrane at the anterior portion of the wound in order to hold the flap in place.

The operation is readily performed, and

[1] Read before the Philadelphia County Medical Society, May 14, 1890.

seems to me a distinct improvement in nasal surgery. So far as I know it is novel.

My observations have led me to believe that a great many cases of crooked nose or occluded nares are not due to fracture or congenital deformity, but to interstitial growth of the septal cartilage. It is impossible to increase the area of a partition situated between fixed borders without causing the partition to assume a curve. The triangular cartilage cannot extend upwards, downwards or backwards, because of its margins in these directions being fixed, hence, when it increases in area by abnormal growth it assumes curves and distorts the anterior portion of the nose.

I have recently operated upon a case in which the crookedness of the nose was very marked, and had been increasing within the last few years. In this case it was quite evident that the deformity depended upon a double curve of the septal cartilage, which was apparently due to abnormal interstitial growth.

Submucous resection of the cartilage is, it seems to me, a good method for relieving many cases of nasal deformity. The removal of angular or curved portions of cartilage without cutting away the mucous tissue is an operation giving rise to no great hemorrhage, although, of course, the bleeding is free.

I show to-night an elliptical section of cartilage, the result of an operation done by this method. In this case, as the members will see, I cut out a portion of the bone as well as of the cartilage, and I subsequently removed another small piece of bone at the back part of the nares, by using a saw pushed under the mucous flap. The small portion of bone attached to the elliptical strip in the specimen was removed by the incisions made with the tenotome. The anterior portion of the bone of the septum is so thin that it is easily cut through with a tenotome.

The relief of nasal obstruction was immediate and very satisfactory in this case.

An Antipyrin Incompatible.—M. Tardy, a pharmacist, has observed that when antipyrin and carbolic acid are prescribed in the same mixture, an insoluble, oily liquid will separate and probably impair the properties of either or both of the constituents. The upper, or watery, layer appears to contain most of the antipyrin, and the lower oily stratum most of the carbolic acid, but both somewhat altered in odor and appearance.

TREATMENT OF PNEUMONIA WITH ERGOT.

BY J. KNOX HODGE, M. D.,
PRINCETON, ARK.

The controversy now going on in some of our best periodicals (notably the Medical and Surgical Reporter) as to the propriety or impropriety of using powerful arterial sedatives in the treatment of pneumonia, is really perplexing to the busy practitioner, who adopts the most modern and most highly endorsed plans of treatment in this disease; using, with high authority, such remedies as aconite, veratria, digitalis, etc., yet losing at best a considerable percentage of his cases.

In perusing Dr. Hiram Corson's second paper on pneumonia in the Reporter for March 29, I am favorably impressed, and heartily concur with him in his condemnation of this class of remedies, but cannot follow him further and endorse his practice of promiscuous "blood-letting" in this formidable disease; yet, did I not possess a remedy superior in my judgment to either, I should confess that his objections to the powerful sedatives are valid, and his theory of venesection plausible, and I should adopt the latter as the lesser evil.

In ergot and its preparations, we have a remedy that meets the indications in any stage of the disease, especially the first and second, and which in my hands has been eminently successful in combatting the same. It is a fact long since established that this article possesses the peculiar property of producing contractile action of the non-striated muscular fibres of any distended vessel or organ, for example, the impregnated uterus, enlarged spleen, myomatous tumors, etc. The various stages of pneumonia present somewhat analogous physical conditions. In the first stage the blood-vessels are engorged with blood and the air cells filled and distended with a sero-mucous effusion; in the second, the condition of affairs in not materially changed, except that a plastic extravasation has taken place, and the air cells are still further distended with a concrete and bloody lymph; whilst, in the third, the plastic secretion has been supplanted by a purulent fluid. Is it not at least reasonable, then, that ergot, which possesses this peculiar contractile power in just such conditions, would be strongly indicated in reducing the abnormally distended

blood-vessels and air cells to their normal caliber, and thus disgorging the diseased organ and terminating successfully a diseased condition, which otherwise so often proves fatal?

Now I would say to my brother practitioners, that this is not merely a theory, but has been put into practice by the writer, with the best and most satisfactory results, having previously for a period of several years resorted to the antiphlogistic treatment, both by blood-letting and by arterial sedatives with a much greater mortality. During the present season this disease has been unusually prevalent, appearing, too, in most cases, in an aggravated form; a great many of its subjects being previously debilitated by the ravages of epidemic influenza —yet not a single case under my treatment has proved fatal during a period of one year, since which time I adopted the foregoing theory and put it into practice. It is my custom when called in the first and second stages of pneumonia to prescribe the following:

℞ Ext. ergoti fluidi . . . . . f℥iv
Tinct. gelsemii
Vini antimonii āā . . . . . f℥ii

M. Sig. Thirty drops every two hours, to be increased if necessary.

The object in using the mild and safest of all sedatives, gelsemium, is to adapt the heart's action to the sudden transition from a greatly distended to a much reduced and contracted caliber of the blood-vessels of the lungs, preventing too great frequency of pulsation, which would generate a high temperature, calling for antipyretics, which I rarely find necessary to use. The antimony exerts a special influence upon the skin, which I find a valuable adjunct in the treatment.

In a more advanced stage of the disease the foregoing prescription would be supplemented to meet the more prominent symptoms of the case. During the suppurative stage of the disease salol has proved of much value in my hands. I would admonish any one against doubting as to "whether a cure was ever effected in this stage of the disease." Should typhoid symptoms supervene, during the progress of the disease, the compound solution of iodine will prove most valuable.

Now the treatment of pneumonia as here given lacks but one thing to fully recommend it to the profession—it does *not* "furnish opportunities for *post-mortem* investigations."

INHALATION OF HEATED AIR.

BY JACOB R. LUDLOW, M. D.,
EASTON, PA.

Since the middle of June, 1889, I have been trying the hot-air treatment so highly extolled by Dr. Weigert, of Berlin. My experiments have not been exhaustive, nor as thorough as might have been desired, because I was never able to get patients to submit to sittings of two hours twice a day, as required by the Berlin practitioner. The best I could do was to get a half-hour twice a day, or about three-fourths of an hour once a day. In all, I have used it in six cases: three of phthisis of three or four years' standing, and three of what might be called incipient phthisis. The results, although not brilliant, were certainly not quite negative.

The inhalation of air heated to 280° F., raised the axillary temperature from one and one-half to two degrees. It can be used without harm or discomfort as high as 350° F. It produces a feeling of warmth in the lungs, chiefly of the diseased portions, rather agreeable than otherwise. It produces this feeling of warmth in the region of the stomach if there is coincident catarrh of that organ. It produces generally a feeling of heat over the whole body, rather uncomfortable, and sometimes followed by free sweating. It produces a huskiness of the voice which passes off entirely within an hour after using it. By continuous use the feeling of heat in the diseased lung, which is noticeable at first at a temperature of 212°, gradually becomes less, until 350° is easily borne. Two persons under treatment tell me they use it sometimes at 380° and 390° without discomfort; although I have generally advised keeping the heat at from 280° to 300°.

The three old cases were not cured; but they were not injured, and in some respects they seemed improved after using it three months. Two cases were subject to hemorrhages; but the hemorrhages were not oftener during its use than before. One patient developed a remarkable appetite after using it about two weeks, gaining strength, and was certainly better.

Of the incipient cases, two were suffering,

and had been suffering for some time, with cough and a marked dry, husky and stridulous voice. In both these cases, after about three months' use, once a day, the hoarseness and harshness of the voice disappeared, and the tone of voice became so much more pleasant as to be remarked by friends. One of these patients, after three months' treatment, went West and got married. The other came to my office about a month ago and reported herself better than she had been for years, with her cough gone, and, indeed, quite well; but she requested to keep the inhaler until warm weather, as she said that she found if she caught cold a few sittings would relieve her.

In the other case, the sixth, there was rhinitis with partial stenosis. I have used the hot air through the nose. It was noticeable that in one nostril the utmost heat that could be borne was 180°, in the other 200°. After a week 200° could be borne in both nostrils, and at the same time the air could be inhaled through the mouth at 350° easily, and the patient informed me that she had used it at 390° without discomfort.

The results are: a marked improvement in the general condition of the patient; an almost complete removal of the stenosis; a disappearance of the redness and puffiness of the nose, which has now a paler and more delicate look; and increased toleration of the hot air, which the patient can now use without inconvenience at 270° F., and which she informs me is followed by a free discharge from the nose, and by a subsequent feeling of marked relief and comfort. This patient informs me that her cough is nearly gone, her appetite good and that she considers herself quite well.

It must be understood that general medication was not suspended during the trial of heated air, either in this instance or in any of the others, so that the hot air is not the only factor to be considered. But my impressions are that it is not wanting in therapeutic value.

The last patient was examined by Dr. Curtin, of Philadelphia, who kindly communicated to me his views of her condition.

SACCHARIN HARMLESS. — The Supreme Sanitary Council of Vienna has recently published a report on saccharin, in which it is affirmed that no ill effect is produced on the human organism by that substance, and that it can be used as freely as ordinary groceries.

SOCIETY REPORTS.

AMERICAN MEDICAL ASSOCIATION.

Forty-first Annual Meeting, at Nashville, Tenn., May 20–23, 1890.

Third Day, May 22.

Hydrophobia.

DR. HAROLD N. MOYER, of Chicago, then read a paper entitled "Hydrophobia, a Clinical Study, with Statistics and Reports of Cases." The speaker objected to the word hydrophobia as misleading, and describing only a symptom and not peculiar to the disease under consideration. He preferred the term rabies. The author's conclusions are that there is a substantial identity between rabies, as seen in this country and Europe; that it is not a psychosis, and bears little or no relation to diseases of the mind.

DR. H. B. BAKER, of Lansing, Mich., read a paper on "Malaria, and the Causation of Periodic Fevers, showing their Dependence on Certain Meteorological Conditions." DR. GEORGE DOCK, of Galveston, Texas, read a paper on "Researches in the Etiology of Malaria and the Micro-organisms of Laveran."

In the Section of Obstetrics and Diseases of Women, DR. MARIE WERNER, of Philadelphia, read a paper upon the

Fistulous Escape of Ligatures after Abdominal Operations,

in which she advocated good drainage and detailed the dangers following abdominal section. Dr. Werner described two cases in which the stump ligatures were thrown off by fistulous tracts on account of leaving the drain too long time in place—eight days in one case, three weeks in the other. Statistics were read to prove that nearly every operator has had just this trouble.

A long discussion followed the reading of this paper.

Intestinal Obstruction.

In the Section of Surgery, DR. C. G. CARPENTER, of Stanford, Ky., read a paper on the necessity for early abdominal section in cases of intestinal obstruction.

DR. NICHOLAS SENN, of Milwaukee, advised immediate operation, not only *after*

diagnosis, but as a means of diagnosis. In obstruction due to paretic inflamed bowel he would restore the continuity of the intestinal canal by lateral apposition—since the increased vascularization of the gut walls will cause union even more rapidly than that which takes place in normal intestines. The condition of the gut is such that circular enterorrhaphy is absolutely unjustifiable.

Major Amputations.

The management of major amputations was then ably discussed by Dr. John A. Wyeth, of New York. His address opened with the statement that the prevention of hemorrhage is of chief importance in these operations, and after this comes the preservation of as much of the limb as possible. The next paper was read by Dr. H. O. Marcy, of Boston, upon "The Surgical Treatment of Biliary Obstruction." Several cases were carefully reported, and a *résumé* of the whole subject of the surgical management of this class of cases was given.

In the discussion of wounds of the abdomen, Dr. Senn said that he did not think that every perforative wound of the abdomen indicated laparotomy. The indication for laparotomy is hemorrhage, as shown by the classical symptoms.

Fourth Day, May 23.

The fourth day's session opened with the reading of Dr. A. L. Carroll's address on State Medicine, by title.

New Rules for the Association.

Dr. Brodie offered the following resolution, which was adopted:

Resolved, that at the next meeting of the American Medical Association, tickets for admission to the first two meetings shall be given each member upon the payment of his annual dues, the same to be shown at the door to a person appointed for the purpose.

Resolved, that the placing of all papers and periodicals in the seats for delegates or others, whether relating to the association or not be prohibited at the next meeting.

The following resolution by Dr. Hollister was adopted: Whereas, certain parties, without authority, are presuming to make use of this association for the furtherance of advertising interests; therefore,

Resolved, that at all future meetings of the association such publications be excluded from the places of meeting either of the general sessions or its sections.

Resolved, that in the future each Chairman of a committee of arrangements be directed to procure a copyright of the official programme to the end that the financial rights of the association may be protected by the due process of law. The following resolution, by Dr. Culbertson, was presented: Resolved, that the following by-law be added to the by-laws of the association: that the State and geographical district societies in affiliation at this time with this association having a membership of 100 or more, shall be recognized as branches of the American Medical Association.

Resolved, that all members of said society shall enjoy all the rights and privileges now accorded the delegates.

Resolved, that the said organizations be overtured through our Permanent Secretary to take such action as will enable them to concur in these resolutions.

This resolution was discussed and endorsed.

Dr. Love presented his resignation from the Board of Trustees of the Journal. President Moore was elected in his place.

The committee appointed to confer with the American Pharmaceutical Association recommended the following resolution, which was adopted:

Resolved, that the words Materia Medica be taken from the title of Section 1 and that a new section be formed to be entitled the Section of Materia Medica and Pharmacy, to have the same privileges as other sections of this association.

The following officers were elected for the new section: Dr. Frank Woodbury, of Philadelphia, Chairman; Dr. W. G. Ewing, of Nashville, Secretary.

Medical Exhibit at the World's Fair.

The following resolutions passed by the Illinois State Medical Society were read and approved:

Resolved, that at the World's Columbian Exposition to be held in Chicago in 1893, there should be such an exhibit as will represent the history, progress and present status of the medical and allied sciences, and that this society hereby requests the American Medical Association as the largest and most representative organization of medical men in this country to take the

initiative and inaugurate such measures as will secure a creditable medical exhibit.

Revision of Coroner's Laws.

The Committee on Coroners reported that they had examined the laws of the various States in regard to Coroners, and recommended the need of a revision of these laws. In most States the office is flagrantly neglected. It is too often considered a political position and incompetent men are allowed to fill it. They called attention to the fact that for some years the laws for Coroners in Massachusetts, Connecticut and a few other States had received the necessary revisions, and that the legal aspect of the office was not only properly provided for, but there was, in addition, a board of trained experts called Medical Examiners who looked after the more important medical and physiological features. They, therefore, recommended that the American Medical Association call the attention of the State Boards of Health to the necessity of a careful revision of the Coroner laws.

The following communication from the Tennessee State Druggist Association was then read:

Resolved, that a committee be appointed to lay before the American Medical Association the growing evil of prescribing secret and proprietary preparations by many members of the medical profession; that many of such preparations are frauds, the formulæ often stated on the label are misleading if not fictitious, and that all such preparations should be classed as secret, proprietary or patent medicines, and that the American Medical Association be petitioned to declare it against its code of ethics for any member of that body to prescribe any such preparation.

The President-elect, Dr. Briggs, was then introduced by the retiring President. The final motion to adjourn was then made.

Alcohol in British Hospitals.—From a very interesting report presented to the British Medical Temperance Association it appears that there is a very marked decrease in the amount of alcohol prescribed in 113 hospitals from which a report was received. Collectively the decrease amounts to nearly 50 per cent. as compared with a period twenty-five years ago. There is no doubt that, as a rule, alcohol is too freely and frequently given to hospital patients.

Periscope.

Succi, the Fasting Man.

At three o'clock in the afternoon of Saturday, April 26, the term of forty days which Signor Succi was to endure without eating any food came to its end, having begun at that hour of the day on March 17. The sequestered and canopied space in the Royal Aquarium at Westminster, prepared for his abode, has been daily visited by numbers of people, willing to pay an extra fee, and their curiosity has been gratified by seeing an Italian gentleman, of sallow complexion and evidently, though muscular, without an ounce of spare flesh, neatly dressed and seeming quite at his ease, sitting at a small table raised upon a platform, behind which is the bed where he sleeps at night. At a lower table sit two or three gentlemen supposed to look after the business, with whom may be associated some volunteer belonging to the medical profession—if not a qualified practitioner, it may be a student of the medical school of one of the London hospitals; but we are unable to state what official authority, from the recognized staff of any of those institutions, has made itself in any degree responsible for observing a case of such great scientific interest. The only professional gentleman who gives his name, so far, to authenticate the case is Mr. G. N. Robins, of 46 Marsham Street, M. R. C. S., London and L. R. C. P., Edinburgh, who signs a daily bulletin exhibited at the entrance, testifying the results of his examination, the accuracy of which there is no reason to doubt. For example, on Monday, April 21, the thirty-fifth day of this trial, it was certified, by the usual report of tests, that Signor Succi was "slightly weaker," that his pulse was 52, his respiration 19, his temperature 97.4, his weight 95 lb. 5 oz.; his muscular strength of hand-compression, by the dynamometer, equivalent to 47 kilogrammes; and his lung-power, by the spirometer, 1500 cubic centimètres. It was further stated that he had remained in bed all day on the Sunday, and in the night had slept, at intervals, about seven hours and a half; that he had drunk, in the day, ordinary water to the amount of 15½ oz. weight, besides 10 oz. of Kaiserbrunnen alkaline table-water; that an emetic of warm water had been administered, causing a return of 8½ oz.; and that an enema had been applied, at ten in the morning, the result of which was speci-

fied. We are told, by those who conduct the exhibition, that Signor Succi has eaten nothing, and has not taken, in any way, a particle of nutritious food, since March 17; and, though it is generally not easy to prove a negative, they may be prepared with evidence that would satisfy a jury of the truth of this assertion. In the meantime, some people will suspend their judgment; and the evidence, when fully set forth and authenticated, to the effect that Signor Succi cannot possibly have taken food, must be criticized by the ordinary rules of historical or judicial inquiry. Without anticipating the verdict of public opinion we present two illustrations of this remarkable affair, leaving our readers to think of it as they may. Giovanni Succi, who is thirty-seven years of age, is a native of Cesenatico, in the province of Forli, in the Romagna; he is son of a sailor, and was brought up to a sea-faring life, but had some college education, and became a banker's clerk in Rome; he afterwards traveled extensively in East Africa, was employed as commercial agent at Zanzibar, in 1880, by the Italian African Company, visited the Comoros Islands and Madagascar, the Portuguese dominions, Natal and the Cape. He invented an elixir, distilled from herbs, of which he is allowed to take twenty or thirty drops every day in his fasting trials, as it contains no nutritive matter, but is only an anodyne. The newspaper accounts of his repeated abstinences from food at Milan, Paris and Florence, during thirty days on each occasion, likewise at Barcelona, Madrid, Lisbon, Rouen and Brussels, since 1886, have gained celebrity; and the Academy of Florence awarded him a diploma of scientific merit. If his pretensions should be endorsed with equal authority in London, after the investigation and discussion that ought to follow this forty days' exhibition at the Westminster Aquarium, Signor Succi's fame will have been secured all over Western Europe. There are no signs of his being likely to kill himself by these experiments. The close confinement, day and night, to a gas-lighted, ill-ventilated apartment in the Royal Aquarium might have been expected to injure his health; but we do not hear that it is so. He has lost weight 30 lb. 14 oz. and three-quarters of an inch height. Signor Succi is a smoker, and is permitted to solace himself with a pipe or cigar whenever he pleases, but does not smoke so much as he used to do. He talks little, but reads the newspapers, and writes autographs for sale with copies of his portrait. An attendant showman discourses to the crowd of visitors. The managing director of the Aquarium says he cannot, if he would, force Signor Succi to take food. We feel sure that Signor Succi will never die of starvation, however long may be the periods of his fasting exhibitions in future: he knows very well, all the time, what he is doing to himself.—*Illustrated News of the World*, May 10, 1890.

Adulteration of Food.

In his annual address, delivered Jan. 23, 1890, before the Chemical Society of Washington, the retiring president, Mr. Edgar Richards, said that, from want of reliable information in regard to the materials employed in most new food products, there is a general feeling of uncertainty and insecurity on the subject. People, as a rule, imagine that any substance used as an adulterant of, or a substitute for, a food product is to be avoided as itself being injurious to health; and when they hear that a certain food is adulterated, or is a food substitute, there is immediately a prejudice excited against the article, which it takes time and familiarity to allay. A moment's reflection ought to show that it would be directly contrary to the food manufacturer's interest to add to, or substitute anything for, a food product which would cause injurious symptoms, as in that case his means of gain would be cut off by the refusal of consumers to buy his product. It is true that the unscrupulous manufacturer or dealer does not hesitate to cheat his customer in the interest of his own pecuniary profit and gain, but he does not want to poison him. Where, through carelessness or ignorance, injurious substances, such as the arsenic, copper, aniline, and other metallic and organic poisonous salts sometimes used for artificial colors, are added to foods, their presence is promptly revealed by the dangerous symptoms which they call forth in the consumer. About a year ago some Philadelphia bakers added chromate of lead to color their cakes, and caused the death of several persons, and serious illness in nearly every one who ate any of these products.

The great majority of substances used for food adulterants or substitutes consist of cheap and harmless substances, which are not injurious to health, as the following list of those most commonly met with in the

principal food products will show. This list has been compiled from the reports of the State boards of health, the returns of the British Inland Revenue Department, the reports of the British Local Government Board, and those of the Paris Municipal Laboratory.

Food Products and their Chief Adulterants.

FOOD PRODUCT.	ADULTERANTS.
Milk	Water, removal of cream, addition of oleo-oil or lard to skimmed milk.
Butter	Water, salt, foreign fats, artificial coloring-matter.
Cheese	Lard, oleo-oil, cottonseed-oil.
Olive-oil	Cottonseed and other vegetable oils.
Beer	Artificial glucose, malt and hop substitutes, sodium bicarbonate, salt, antiseptics.
Syrup	Artificial glucose.
Honey	Artificial glucose, cane sugar.
Confectionery	Artificial glucose, starch, artificial essences, poisonous pigments, terra alba, gypsum.
Wines, liquors	Water, spirits, artificial coloring-matter, fictitious imitations, aromatic ethers, burnt sugar, antiseptics.
Vinegar	Water, other mineral or organic acid.
Flour, bread	Other meals, alum.
Baker's chemicals	Starch, alum.
Spices	Flour, starches of various kinds, turmeric.
Cocoa and chocolate	Sugar, starch, flour.
Coffee	Chicory, peas, beans, rye, corn, wheat, coloring-matter.
Tea	Exhausted tea-leaves, foreign leaves, tannin, indigo, Prussian blue, turmeric, gypsum, soap-stone, sand.
Canned goods	Metallic poisons.
Pickles	Salts of copper.

The use of flours and starches of various kinds—wheat, corn, rye, peas, beans, etc.—as food adulterants cannot be considered injurious to health. However much the public may be cheated in the purchase of such adulterated articles of food, as ground spices, coffee, etc., they are not poisoned by their consumption. It is a question how much a purchaser is himself to blame, in his endeavor to secure a "bargain," when he demands so great a quantity of any given material at less than it can be purchased at wholesale in the market, that he compels the unscrupulous manufacturer to make a compound which has never more and generally less than the proportion of the genuine material represented by the price asked.

Many articles of food spoil in transportation; and, under the plea of preventing further fermentation, resort is had to antiseptics, such as salicylic acid, sulphite of soda, borax, etc. These deserve mention as being additions to foods of a class of substances used to cloak carelessness in manufacture and otherwise, and producing in many cases deleterious effects on the human economy. In France and Germany the use of such antiseptics as salicylic acid in food products is prohibited, although in the latter country such addition is tolerated when the food product is exported to countries where such use is not prohibited.—*Science*, Feb. 7, 1890.

Hunterian Chancre of the Face.

On the invitation of Dr. White, Mr. Frederick Treves, of London, delivered a clinical lecture to the Ward Class at the University Hospital, in which he described a case of Hunterian chancre of the face as follows:

"This patient is exceedingly interesting from several points of view, and particularly as showing how little reliance should be placed in the history of disorders as ordinarily given. She comes to us to-day with two large ulcers upon the surface of the left cheek—one, the size of an infant's palm, placed immediately in front of the ear; the other, not larger than half-a-dollar, separated from the larger granulating surface by half an inch of apparently healthy skin. We are told that these ulcers began five weeks ago as slight pimples, and have grown steadily worse in spite of treatment. On examination it is found that they have densely indurated and sharply circumscribed bases; that the secretion from them is comparatively slight; that the chain of lymphatic glands running down the neck is enlarged, each gland being felt as a hard, round globule. On further examination we find an efflorescence covering the greater portion of the body. This eruption presents the following characteristic appearance: It is rounded in form. It is unattended by itching. It is coppery in color. It is symmetrically placed, and it is polymorphous, that is, while in one place we have maculæ, in another papules are seen, or the eruption may still take other forms.

"With clinical symptoms such as these, your diagnosis is absolutely certain. Whatever be the social position of your patient, whatever be the history given you, you have here the characteristic features of the Hunterian chancre, with the early secondary eruption just beginning. The poultice which this patient has applied to her ulcers should be at once replaced by some form of mercurial dressing. She should be placed upon small doses of mercury internally, and under this treatment we can promise a speedy cure. With such a lesion as this you would of course expect much deformity, and in answer to the patient's question upon this point, you would naturally say 'Yes; there will probably be a considerable scar following the cure of this lesion.' As a matter of fact, however, in two or three years you will scarcely be able to perceive the seat of these large ulcers. I have seen cases more marked than this where, after the duration of some time, a casual observer would fail to notice that there had been any lesion. The character of the chancre is influenced greatly by its position, and the appearance of this one is quite typical of those found upon the face."—*University Medical Magazine*, Feb., 1890.

Successful Removal of a Cancerous Tumor from the Pancreas.

Professor G. Ruggi, of Bologna, has recently reported a case in which he successfully removed a cancerous growth from the pancreas. The patient was a woman, aged 50, who had suffered for some time from swelling of the abdomen, which caused great discomfort and occasionally severe pain. Though still well nourished, she had lost flesh considerably; the digestive functions were much disordered, but all the other organs seemed to be perfectly healthy. The patient suffered from profound mental depression, which she said was worse than her bodily sufferings. On examination the abdomen was found to be uniformly distended by fluid in the peritoneum, and two tumors could be felt, one above the other, with a distinct line of demarcation between them. The lower one was continuous with the body of the uterus, and was judged to be a fibro-myoma. The upper mass occupied the left colic and hypochondriac regions, and extended in front towards the umbilicus. Its posterior extremity corresponded to a prolongation of the mid-axillary line, and the anterior to a prolongation of the parasternal line. The tumor measured ten inches in its long, and five inches in its short, diameter. If the patient lay down with her shoulders lower than her pelvis the tumor disappeared under the arch of the ribs, returning to its natural position when she sat up. Vaginal examination, whilst confirming the diagnosis with respect to the lower tumor, threw no light on the origin or relations of the upper one. The spleen, kidneys and liver were normal to palpation. A provisional diagnosis of retroperitoneal adeno-sarcoma was made, and laparotomy was performed on September 4, 1889. The patient having been placed on her right side the abdomen was opened by a lateral transverse incision just under the left costal arch. In attempting to separate the tumor from the peritoneum, to which it was adherent in front, the peritoneal cavity was opened, and a quantity of yellowish fluid escaped. The mass was then drawn through the hole in the peritoneal sac, bringing with it the omentum and a loop of the small intestine surrounding the lower and inner end of the tumor. The latter was soft, like brain substance, and broke down under the fingers, but the operator was able by degrees to pick it off the intestine to which it was attached, a catgut ligature being applied here and there. The adhesions to the omentum were firmer, and that structure had to be divided into bundles, which were tied separately and cut through. The tumor when brought away was a shapeless mass of pulp, bearing no resemblance to the normal pancreas. The peritoneal cavity was carefully cleansed, and drainage-tubes placed in the posterior part of the wound. The front part healed by first intention, and the patient made an excellent recovery, being discharged cured on October 26. Her appetite was excellent, and the deep depression from which she had suffered before the operation had entirely disappeared. Recent accounts state that she is still in perfect health. The fragments of the growth removed weighed twenty ounces; microscopic examination proved it to be a glandular cancer. Professor Ruggi thinks that little or none of the affected organ was left behind; the opening into the duodenum was certainly destroyed. The patient's digestion, however, is perfect, although no particular precautions have been observed as to diet. —*British Medical Journal*, March 8, 1890.

Orthrine—a New Antipyretic.

The *American Druggist*, April, 1890, quoting from the *Chemist and Druggist*, says:

Under this name, Prof. Kobert recommends as an antipyretic a new derivative of phenylhydrazin, which has been obtained by the combination of hydrazin with paraoxybenzoic acid. This new body, orthohydrazin-paraoxybenzoate, is very unstable, but unites with hydrochloric acid, forming the hydrochlorate of orthrine, which is stable. Clinical experiments made with the new antipyretic by Prof. Unverricht show that, in 30 to 50 c.c. doses, orthrine acts in typhoid fever, pneumonia and articular rheumatism generally with great energy; but it is uncertain, and its advantages are slight compared with its disadvantages, amongst which are profuse perspiration, collapse and symptoms of intoxication. Michaelis has recently mentioned two other hydrazin derivatives which possess antipyretic properties; these are acetylethylenephenylhydrazin,

$$(C_6H_5)_2N_2.C_2H_4.N_2.2H(CO.CH_3),$$

and ethylenephenylhydrazin succinic acid,

$$(C_6H_5)_2{-}N_2{-}N_2{-}2H(CO.C_2H_4{\cdot}COOH).$$

These two substances are yet on clinical trial, and it is to be hoped that they will have shorter names if they are to go down to posterity.

Simple Remedy for Thrush and Sordes.

A very simple and efficacious remedy for thrush and sordes was suggested by Mr. W. Theophilus Ord, of Bournemouth, England, in the *Lancet* last year. He says the following lotion, applied frequently with a feather or brush to the white patches, kills the oïdium albicans more quickly than any other he knows, and removes the patches after a few applications, leaving healthy mucous membrane. It consists of equal parts of black-wash and glycerine mixed. The quantity used is so small as to be quite harmless. Another condition in which he has found the same lotion valuable is that of sordes on the teeth, lips and tongue in many cases of enteric fever. It cleans these parts as if by magic, and renders that unpleasant process known as "scraping the tongue" quite unnecessary. It may also with advantage be painted over the fauces in unhealthy conditions of the throat common in typhoid. He tried it in one case of catarrhal stomatitis, but it had no effect, whereas chlorate of potash effected an immediate cure. Also in the sordes of advanced phthisis it seemed to be of no use. Part of the beneficial influence of the application is, no doubt, attributable to the glycerine.

Boroglycerine Cream.

The following formula for boroglycerine cream appeared in the *Chemist and Druggist*, April 26, 1890: Dissolve 15 grains of boric acid in 4 fluid drachms of glycerine, using a little heat to aid solution. Set aside to cool, and meanwhile melt together 80 grains of anhydrous lanoline and 2 oz. of vaseline, coloring the fatty mixture with a $\frac{1}{10}$ grain of alcanin. Incorporate the boroglycerine and perfume with 1 drop of otto of rose and 1 drop of bergamot. This preparation is, according to Dieterich, who has devised the formula, equally suitable for the hands, lips, etc.

Hot Fomentations in Atrophy of the Optic Nerve.

A case of atrophy of the centre of the optic nerve is reported by Dr. Segall in the *Lancet*, May 3, 1890, in which, after mercurial inunctions and strychnine injections had been employed with only very temporary benefit, the application of hot fomentations two or three times a day to the occiput for fifteen minutes at a time produced a very marked improvement, the amount of vision being doubled. A still more marked improvement was noted when fomentations were applied simultaneously over the closed eyes. Unfortunately, however, the good effect of the fomentations was, like that of the more usual forms of treatment, of but very limited duration.

Menthol in the Vomiting of Pregnancy.

L. Weiss, in the *Therapeutische Monatshefte*, quoted in the *National Druggist*, May, 1890, says the following has proved very efficacious in his hands:

℞ Menthol . . . . . ℥i
Alcohol . . . . . f℥iiss
Simple syrup, q. s. ad . . . . . f℥vii

Mix. Dose: A teaspoonful every hour until relieved.

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CHARLES W. DULLES, M.D.,
EDITOR AND PUBLISHER.

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NEVER ROLL A MANUSCRIPT! Try to get an envelope or wrapper which will fit it.
When it is desired to call our attention to something in a newspaper, mark the passage boldly with a colored pencil, and write on the wrapper "Marked copy." Unless this is done, newspapers are not looked at.
The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

OBJECTIONABLE CENSUS QUESTIONS.

Dr. Benjamin Lee, Secretary of the Pennsylvania State Board of Health, has sent to the editorial office of the MEDICAL AND SURGICAL REPORTER a circular addressed to physicians in Pennsylvania, in which he urges them to answer what we termed "Objectionable Census Questions," in an Editorial in the issue of June 7. Dr. Lee says: "An opportunity is afforded in connection with the taking of the census by the United States Government, of obtaining statistical information which cannot fail to be of extreme value to the State, as regards the physically defective classes which compose a portion of its population. The State Board of Health, to which has been confided the duty of superintending the collection of vital statistics in this Commonwealth, is desirous that these returns should be as full as possible."

Dr. Lee goes on to explain that he has written to the Census Office and got an assurance that the returns of physicians will not be made public, and he urges physicians to answer.

When speaking on the subject, on June 7, we gave what we regard as a sufficient reason why physicians should not answer the objectionable census questions; but we will add something to what was then said.

We do not share the generous opinion of Dr. Lee that it is safe to confide to the census enumerators or clerks the secrets of those who have trusted to our honor as medical men. On the contrary, we think no physician is warranted in committing these confidences to such men as some are who do the census work, even on the assurance of the authorities that they will not tell. There has been a good deal said about the heavy fine to be imposed on an enumerator who reveals what is told him. But, is there any man of average intelligence who would like to have an enumerator know that he has syphilis, for example, and take the chance of having him detected in revealing the fact or punished by the great United States Government in case he should tell of it to another, now or after the lapse of a few months? Supposing these secrets are sent direct to Washington and burned up, after being tabulated, as we are told they will be: what right has any physician to send to a lot of clerks gathered from different parts of the country a set of papers in which—if they are to have any value—they must carefully study the names and addresses of those reported as defective or diseased? Would any man feel like trusting his own secret to the chance that it would not be carefully remembered, and perhaps some day divulged by a clerk who came from his own neighborhood? And, is any medical man justified in making such a revelation of another's secret possible? By no means; and let no medical man do it! On this ground alone,

we again urge the readers of the REPORTER to let the census men have no share in their professional secrets.

But, besides this, we have no notion that the census statistics of physical defects and diseases will have any value at all as statistics. Those who know the way in which census statistics are collected, and who have any knowledge of human nature, will know that on this head they will be somewhat worse than useless, because there will perhaps be a few persons who think they have some value. If they are utterly discredited they cannot do harm; but if they are trusted at all, they surely will.

It would have been much better if Dr. Billings—who, we are informed in a circular from Washington, dated June 4, is "now absent"—had never prompted the introduction of such foolish and impossible questions, or if the census officers who are still in the country were to back squarely down about them, and acknowledge the mistake that has been made.

Certain we are that nothing can be gained by pushing them, and we hope that the attitude of the medical profession on this occasion will make it impossible for another census to be made the occasion of such a blunder.

PHYSICIANS AND INTEMPERANCE.

Not long ago the Philadelphia daily papers recorded at considerable length the circumstances connected with the death of two comparatively young men, who fell victims to the excessive use of alcoholic stimulants. One of these was a business man of fine culture, occupying a responsible position, and of entire financial integrity; the other was a medical man of considerable ability, of reasonable industry, and who had had every opportunity of becoming successful as a practitioner and as a writer. As is customary in such cases, every effort was made to lessen the painfulness of the circumstances to the families of those who died. This is an indication of kindness of heart which does credit to the managers of the newspapers, but we doubt if it is in the line of wisdom; for it appears as if, in this day, too much were done to remove the burden of responsibility for one's actions from the individual who does wrong to those who surround him, or to the circumstances in which he is placed, and that there is entirely too much fear and unwillingness to speak plainly in regard to wrong-doing, in order to warn those who have not already committed themselves to unfortunate ways and to maintain a strict standard of uprightness. For this reason we refer to these deaths, and especially to the one of the physician mentioned, who began to be a slave to alcohol and to opium several years ago, and whose downfall appears to have been a gradual progression. He came to be more and more intemperate, until, in consequence of shameful conduct on his part while grossly intoxicated, his career terminated in a helpless fall down a flight of stairs, a fracture of the skull, a hospital bed, and a Coroner's inquest.

The plain statement of one case, like this, ought to exert an influence upon medical men who are in any danger of being beguiled to the habitual use of any alcoholic or narcotic stimulant. None know so well as we do the insidious approaches by which these enemies of mankind obtain control over the most promising and sometimes the apparently most virtuous. And none should so strongly combat the practice, into which physicians themselves sometimes fall, of habitually using these things for the relief of conditions which a little patience and endurance would enable them to surmount without artificial aid. And above all, physicians ought to understand that they, least of all, have a right to expect that the cover of euphemism should be thrown over their weakness and their wrong-doing, if, with all the light that they have on this subject, with all the examples that are continually coming under their notice, they themselves become addicted to habitual excesses.

It is painful to have to record such cir-

cumstances as we have referred to above, but if doing so shall be of any service to any member of the medical profession, young or old, the occasion will not have been misused.

TREATMENT OF OBSTINATE CONSTIPATION BY DILATATION OF THE ANUS.

All physicians recognize the importance of keeping the bowels, the great sewer of the body, in an active condition. The moment they become sluggish, the fecal matter which should be expelled promptly begins to be reabsorbed and gives rise to various local and reflex irritations. Few, however, have thought of employing forcible dilatation of the anus in even the most obstinate and rebellious cases of constipation. The measure appears at first sight unnecessarily heroic; but, as it is urged by Monod, a well-known French surgeon, it cannot be passed by with a mere shrug of the shoulders.

In the *Annales de Thérapeutique Medico-Chirurgicales*, March, 1890, Monod relates in detail the history of two cases in which this operation was performed with marked success. In the first case, a woman forty-five years old had suffered for some years with digestive troubles, which she thought were due to a tumor of the bowel. Digestion was disturbed by swelling of the belly and eructations, with a feeling of weight in the lower part of the abdomen, and with constipation alternating with diarrhœa. On examination of the rectum, Monod found that the tumor was an enormous lump of hardened feces, the presence of which had not been suspected because there had been no sign of obstruction of the bowels recognizable by the patient, as the fecal matter, rendered fluid by repeated purgatives, slipped over the hard mass. After dilating the anus instrumentally, the mass referred to was broken up with the fingers and was removed, together with a vast number of scybala. A laxative given in from twenty-four to forty-eight hours completed the clearing out. As six years have elapsed since the operation, and the patient has had no return of her troubles, there is some ground for regarding it as curative. Of course, however, careful instructions were given regarding the regulation of the diet.

In the second case, a woman, fifty years of age, suffered with habitual constipation and various digestive troubles brought about by it. The use of repeated injections and laxatives, or, in their absence, the passage through the rectum of hard fecal matters had induced a condition of habitual irritability of the anus, never, however, amounting to the cutting pain of fissure. Monod dilated the anus; and the patient's distressing symptoms disappeared and gradually she was able to do without laxatives.

Monod says these are not the only cases of the kind he could cite. They are sufficient, however, to illustrate the fact that some cases of constipation depend upon a local removable lesion of the lower part of the rectum and of the margin of the anus, which can be remedied by dilatation of the anus. This treatment must necessarily have a very limited range of applicability, but it certainly appears worthy of consideration in the management of cases in which constipation is the result of habitual spasm of the sphincter ani, set up by hemorrhoids, fissure, eczema or—as apparently in the first case—by an impassable ball of hardened feces.

—The Philadelphia Board of Health has adopted a series of new rules, relative to the interment of bodies, registration of deaths, etc., to go into effect July 1. Under the new rules no interment will be allowed without a permit from the Board, instead of permitting the certificate of death to serve as a permit for interments, as at present. A new rule is provided extending the office hours of the Registration Office. Another rule requires that all coffins, etc., used to carry a body to any crematory must be burned at once at the same place.

Book Reviews.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the Reporter.]

ZUR RADICAL OPERATION DER UNTERLEIBSBRUCH, von Dr. Friedrich Walter, Hamburg. SAMMLUNG KLINISCHER VORTRAGE. No. 360.

RADICAL OPERATION FOR ABDOMINAL HERNIA. By Dr. Friedrich Walter, Hamburg. 8vo, pp. 59. Leipzig: Breithopf & Härtel. April 21, 1890. Price, 75 pfennigs.

Dr. Walter tabulates 165 cases of hernia under the care of Schede at the general hospital at Hamburg, between the years 1880 and 1888, in which radical operations were performed. There were 51 cases of incarcerated and 40 of not incarcerated inguinal hernia in 79 males and 9 females; 64 cases of incarcerated and 10 of not incarcerated femoral hernia in 70 females and 4 males, of all of which 95 were right-sided and 67 left-sided. Of these 43 were completely cured. In 15 the results were imperfect or recurrences followed. A case was considered cured if the hernia had not returned at the end of a year. In 95 high ligation of the sac was performed, with extirpation and with closure of the ring; in 17, of which 15 were cases of femoral hernia, ligation of the neck was done and the sac extirpated; in 15 the ring was closed by suture, probably with ligation of the neck of the sac; in 3 the inguinal canal was exposed by division; in 11 the method was otherwise modified; thus, in 2 cases the sac was used to cover the bed of the hernia, and in 1 it was pushed beneath the peritoneum and the ring was closed. In 24 cases the method was not indicated.

In 53 cases the omentum was tied with catgut and removed, and the stump was permitted to retract. As a rule the sac was completely removed. Partial extirpation was done only in cases of congenital inguinal hernia. Care was taken to avoid injuring the testicle and epididymis. In one case the vas deferens was accidentally severed and then sutured.

In most cases narrowing of the hernial ring was attempted. It was omitted in 15 of 74 cases of femoral hernia and in 2 of 91 cases of inguinal hernia. Minor complications arose in about 62 per cent. of the cases, grave complications in 7 cases, of which 4 terminated fatally.

DER GEWOHNLICHE UND UNGEWOHNLICHE WANDERUNGS-MECHANISMUS WACHSENDER EIERSTOCKSGESCHWULSTE, von Dr. H. W. Freund, erstem Assistent der Frauenklinik zu Strassburg. SAMMLUNG KLINISCHER VORTRAGE. Nos. 361 and 362.

THE USUAL AND UNUSUAL MECHANISM OF THE RELATIONS OF GROWING OVARIAN TUMORS. By Dr. H. W. Freund, first assistant at the gynecological clinic at Strassburg. 8vo, pp. 72. Leipzig: Breitkopf & Härtel. April 21, 1890. Price, one mark and a half.

In quite an elaborate paper, including a table of 200 cases of ovarian tumors, Freund explains the mechanism of the relations of such tumors at different periods of their development. He makes an analogy between the growth and development of ovarian tumors and the growth and development of the pregnant uterus. Both result from a mechanism governed by fixed laws affecting the tumor and adjacent organs. The author distinguishes a normal and an abnormal mechanism and recognizes two stages. In the first stage of the normal mechanism the tumor grows in the direction of least resistance. This is towards Douglas's cul de sac. It pushes the uterus forward and somewhat laterally, and produces pressure upon the bladder and rectum. In the progress of its development it meets resistance at the floor of the pelvis. It now must needs ascend. This is the second stage. The tumor escapes at the superior strait, falls forward and lies in front of the uterus, at the same time rotating. It presses upon the middle of the fundus of the bladder, while the abdominal viscera are pushed upwards and backwards. The conditions favoring the normal mechanism are mobility of the tumor and of the uterus, ample room in the abdominal cavity and relaxation of the anterior abdominal wall. Any change in these conditions must modify the normal mechanism. So when the tumor is intra-ligamentous it pushes the uterus upwards and laterally, compresses the bladder and mayhap the ureters. If the tumor have early formed adhesions with the pelvic peritoneum, it can grow, but not wander; it lies behind the uterus, which it usually elevates. If the uterus is fixed in the pelvis, or if its mobility be impaired by unusual size or weight, such as may be induced by pregnancy or by neoplasms, the normal mechanism is altered. Lastly, rigidity of the abdominal walls may offer such resistance that the tumor fails to attain its normal relation to the uterus.

SAUNDER'S QUESTION COMPENDS. Essentials of Forensic Medicine, Toxicology and Hygiene. By C. E. Armand Semple, M. R. C. P. Lond., etc., Member of the Court of Examiners and Late Senior Examiner in Arts at Apothecaries' Hall, etc. With one hundred and thirty illustrations. Small 8vo, pp. xvi, 196. Philadelphia: W. B. Saunders, 1890. Price, $1.00.

The author has endeavored, in this little book, to condense the contents of such well-known text-books as those of Tidy, Woodman, Guy, Taylor and Caspar into the small space of a compend. He declares that it is not intended to exclude the use of the elaborate treatises, but merely to serve as an introduction to them and as a convenient way of refreshing the student's memory just before his examination. As the author makes no personal claim except for the form of the book, one is debarred from such criticism as would be in place concerning a more pretentious work.

In looking over the pages we notice some queer-looking spermatozoa figured on page 21. The author states, regarding the relative length of the head and tail, that the latter "is generally five or six times the length of the head;" it would be correct, according to Ultzmann, to say ten times the length of the head. It is objectionable, also, as tending to perpetuate a long-exploded notion, to speak of spermatozoa as "animalcules."

There is less need on the part of a student for a compend on this subject in the United States than in Great Britain, but those who desire a brief synopsis of the subjects mentioned will find it in Mr. Semple's book.

THE STUDENT'S SURGERY. A multum in parvo. By Frederick James Gant, F. R. C. S., Senior Surgeon to the Royal Free Hospital. 8vo, pp. xxxv, 817. Philadelphia: Lea Brothers & Co., 1890. Price, $3.75.

The present volume is a condensation of Gant's well-known work on the *Science and Practice of Surgery*. The chapters in the latter book on the

eye, ear, teeth, skin, female genital organs and orthopædics, which were contributed by special authorities, have been omitted, but the same order of arrangement in other respects has been followed.

The first part of the book is very properly devoted to General Pathology and Surgery, under which are included diseases of nutrition, diseases of the blood, diseases of contagious origin, and diseases of the nervous system. The second part of the book, on Special Pathology and Surgery, is taken up with injuries and diseases of textures, and injuries and diseases of organs and regions. Under the heading of Injuries and Diseases of Textures, in addition to skin, nerve, tendon, muscle and bone, etc., the author includes lymphatics and glands, veins, arteries, bursæ and joints. The special regions treated of are the neck, thorax and abdomen. The systematic arrangement adopted and the minute subdivision of the subjects in the table of contents (which covers thirty-four pages), make the absence of an alphabetical index a less serious fault than it would be otherwise.

The book is an excellent guide for students, in spite of the fact that some of the methods of treatment which the author advocates have now been superseded by better. The publishers have maintained their reputation by presenting it in handsome style.

Literary Notes.

—Emperor William has summoned a conference of eminent scholars to discuss the subject of a fixed uniform German orthography. The conference will be held in Berlin. Austria and Switzerland have been asked to send delegates.

—During the past two years from eight thousand five hundred to nine thousand manuscripts were annually submitted to *The Century Magazine* for publication. This is an increase over previous years, and does not include the hundreds, perhaps thousands, of propositions submitted with regard to articles. As there has been an increase in the number of periodicals published in America of late years, and as the newspapers are publishing more contributions than ever by writers not on the regular staff, it is evident that there has been an increase in literary activity at least in proportion to the increase in population.

—Some time ago we called attention to what we considered a fault in *Harper's Young People*, namely, the publication of a class of articles which might tend to injuriously affect children's nerves. In justice, we must now however say that the style of stories to which we took exception no longer find their way into *Harper's Young People*. The publication is instructive, interesting and innocent, and contains nothing that could harm any child's mind or nerves.

—The J. B. Lippincott Company announces in press an important work on *Regional Anatomy in its Relation to Medicine and Surgery*, by George McClellan, M. D., Lecturer on Descriptive and Regional Anatomy at the Pennsylvania School of Anatomy. The work will contain about 100 full-page illustrations reproduced from photographs of his own dissections, taken by the author and colored by him after nature. It will be in two volumes of 250 pages each, large quarto size. The object of the work is to convey a practical knowledge of regional anatomy of the entire body. The text to embrace, besides a clear description of the part in systematic order, the most recent and reliable information regarding anatomy, in its medical and surgical relations. The illustrations are intended to verify the text and to bring before the reader the parts under consideration in as realistic a manner as possible. The first volume will be ready for publication about December 1; and the second volume is expected to appear shortly thereafter. The work will be sold by subscription only.

Correspondence.

Peroxide of Hydrogen.

To the Editor.

Sir: The very practical character of the paper on peroxide of hydrogen by Dr. Noble in the issue of the Reporter of May 10, prompts me to remind its readers that this preparation deserves more than a passing notice. Dr. Noble remarks that the use of this remedy has been limited and that "the opinion expressed by many concerning its value has been uncertain, or certainly not laudatory." While it is true that a number of practitioners who have used the remedy is comparatively limited, the conclusion is scarcely warranted that its applications are limited, even if the expressed opinion has been somewhat uncertain. The reason for medical men being cautious regarding their views as to the value of peroxide of hydrogen arises from the fact that its employment amongst the laity has been conducted under the management of what are termed "quacks," or doctors who advertise, and as doubtless many of these persons have taken it under the expectation that it would cure maladies which are manifestly incurable, the doctor was apparently warranted in saying that it could not possibly be a cure-all, as some of the patients died.

For the purpose of bringing the matter more forcibly to the attention of the readers, permit me to quote from my work upon *Materia Medica*, which was reviewed in the columns of the Reporter March 15, 1890: "As compared with other antiseptics, it is claimed that the dioxide is forty per cent. more potent than mercuric bichloride, twenty times as powerful as salicylic acid and sixty times the activity of carbolic acid. . . . The topical uses of this remedy will include the local use by means of the spray or otherwise, in all such morbid conditions as gangrene, boils and carbuncles, indolent ulcers and carcinoma; also it may be used locally in venereal diseases. Shelly (*Practitioner*,

London, 1884), speaking of the local use of the dioxide, says, 'It is interesting to watch the action when a few drops of the proper solution are brought in direct contact with pus corpuscles.' A brisk effervescence at once commences and continues until all the pus is destroyed, and upon the basis he has suggested that it might be used for the detection of pus in the urine. Such qualities would naturally commend it to the attention of the gynecologist, the ophthalmologist and laryngologist." (This will serve to account for the peculiar experience which was noted by Dr. Noble when the solution was used for the disinfection and irrigation of the wound, when the patient experienced a sensation as if a soda-fountain was inside her.)

"In gynecological practice, a vaginal tampon may be prepared of absorbent cotton and introduced into a gelatin capsule along with the solution of the dioxide and a little glycerine, with the best results. . . . The above-described tampon may be used to good advantage by simply saturating the cotton with the ordinary fifteen-volume solution; but in introducing the tampon the necessary pressure will have a tendency to remove the greater part of the preparation, while by the use of the capsule, which will readily dissolve, the solution can be placed in the desired position."

The foregoing extracts are made simply for the purpose of emphasizing the article to which I have referred, and may be the means of attracting the attention of others whose opinions are still uncertain.

Yours truly,

JOHN AULDE, M. D.

1910 Arch street,
Philadelphia.

NOTES AND COMMENTS.

Quantitative Determination of Sugar in the Urine.

Dr. Charles W. Purdy, of Chicago, writes as follows in the *New York Medical Journal*, March 8, 1890, on quantitative testing for sugar in the urine:

I am sure it will be generally admitted that the methods of quantitative testing for sugar in the urine which have heretofore been in vogue require remodeling in order to meet the practical requirements of those engaged in active practice. Most, if indeed not all, the tests brought forward thus far are either complicated and time-consuming, unstable, or inaccurate, and therefore very far from perfect for practical purposes. Thus the fermentation test requires twenty-four hours' time to determine the quantity of sugar present; and with all possible care and precaution the results are by no means accurate.

Fehling's solution—the one perhaps most generally depended upon — is notoriously unstable, and consequently requires to be freshly prepared in order to be trustworthy. But, even when freshly prepared, Fehling's solution has been by no means satisfactory in my hands. The precipitation of yellow suboxide of copper renders the solution, when testing, so turbid that it is impossible to determine the precise point when the blue color is all discharged. The method advised to overcome this difficulty, by adding the urine little by little and then waiting for the precipitated suboxide to settle, consumes a great deal of time, and, moreover, it only in part remedies the defect referred to.

Dr. Pavy suggested the addition of ammonia, which holds the suboxide in solution, and this very much improves the working of the test. Unfortunately, however, Dr. Pavy's solution is even more unstable than Fehling's, and it is only possible to use it a few times before it becomes useless.

The chief difficulty with both Fehling's and Pavy's test solutions is the fact that the tartaric salt which they contain is very unstable, and cannot be put up in permanent form with strongly alkaline solutions of cupric sulphate. Now, the chemical principles upon which these tests are founded demand that some organic product should be present in the alkaline solution of copper, in order to prevent precipitation of the blue protoxide of the latter which would otherwise occur; and the tartaric salt usually employed for this purpose renders this solution unstable.

Acting in part upon the suggestion first made, I believe, by Schmiedeberg, that the substitution of pure mannite or the potassic or sodiac tartrate renders the copper solution more stable, I have, by the addition of glycerin, which answers this purpose still better, constructed a formula for a test solution which is entirely stable, simple and rapid in application, exceedingly accurate in results, and, on the whole, admirably adapted for clinical purposes. The formula is as follows: Sulphate of copper, 4.15 grammes; pure mannite, 10 grammes; caustic potash,

20.4 grammes; strong ammonia (sp. gr. 0.880), 300 c. c.; pure glycerin, 50 c. c.; distilled water sufficient to make 1 litre.

The solution should be prepared as follows: Dissolve the sulphate of copper in part of the water and add the glycerin and mannite. In another portion of the water dissolve the caustic potash. Mix the two solutions, and when cold add the ammonia. Finally, with distilled water, bring the volume of the whole to 1 litre and carefully filter.

The principle upon which the application of this test depends is the fact that a solution of cupric sulphate of definite strength, combined as in the formula, is reduced at the boiling point by a definite quantity of grape sugar, causing the complete disappearance of the beautiful blue color and leaving a perfectly clear and colorless fluid as the result. Thus 25 c. c. of this solution are reduced by exactly one-quarter of a grain of grape sugar. The test should be applied as follows: Into a four-ounce glass flask are poured 25 c. c. (f℥vj) of the test solution, to which are added 50 c. c. (f℥jss.) of distilled water, and the whole is heated to the boiling point over a spirit lamp. A pipette, graduated in minims and holding not less than half a drachm, is now filled with the saccharine urine, and as the test solution begins to bubble lightly the urine is slowly discharged from the pipette—drop by drop—into the test solution until the blue color completely vanishes and leaves the solution perfectly colorless and clear. The number of minims it took to discharge the blue of the test solution contained just one-quarter of a grain of sugar. By multiplying this number of minims until the product is 480 (one ounce), the multiple thereof is the number of quarter-grains of sugar to the ounce, which, if divided by 4, gives the number of grains of sugar in each ounce of the urine submitted to the test. Any one may readily prove the accuracy of this test as follows: Bring 25 c. c. of the test solution in 50 c. c. of distilled water to the boiling point in a glass flask. Then fill the pipette with a solution of pure grape sugar in water of known strength—say eight grains to the ounce. Still better is the addition of eight grains of grape sugar to one ounce of normal urine, and as the test solution is slowly boiling discharge the sugar solution from the pipette into the boiling fluid drop by drop, when it will be seen that exactly fifteen minims of the sugar solution completely discharge the blue color of the test solution; therefore fifteen minims of the solution contained one-quarter of a grain of sugar, the exact proportion of a solution of the strength of eight grains to the ounce.

Precautions advised.—In testing, the blue solution should be raised to the boiling point and kept *slowly boiling*, not *violently bubbling;* and the urine to be tested should be *slowly discharged* from the pipette, drop by drop, two or three seconds elapsing between each drop, in order that the precise quantity may be determined which completely eliminates the blue color of the test solution.

The advantages which I have found from this test are:

1. Its rapidity of application. As a rule, the quantity of sugar in a given sample of urine may be determined in from five to ten minutes.

2. Its accuracy. When sugar is present in the urine in the usual clinical range of from two to thirty grains to the ounce, the quantity may be determined within from one-tenth to one-twentieth of a grain.

3. Its perfect cleanliness and simplicity of application. No copper products cling to the utensils (as in Fehling's test) or obscure the chemical reactions from view; and the apparatus is of that simple kind usually kept in the physician's office.

4. Its stability. This solution is quite stable, and, if the bottle containing it is corked to prevent the escape of the ammonia, it will keep almost indefinitely.

I shall have something further to say upon both qualitative and quantitative testing for sugar in urine in my forthcoming work on diabetes. In the meantime, as I have been repeatedly asked for my method of quantitative determination of sugar in the urine, the process is as above given.

Symptoms of Poisoning by Corrosive Sublimate used as an Antiseptic.

Dr. E. W. Mitchell, in the *Cincinnati Med. Journal*, March 15, 1890, says: Since corrosive sublimate is frequently used as an antiseptic it is so important that the practitioner should be familiar with the symptoms of its toxic action. Probably some cases of death resulting from its employment in vaginal or inter-uterine injections might have been avoided if the early symptoms of poisoning had been properly interpreted.

The symptoms which have been observed in obstetric practice are summed up by Dr. Garrigues in a paper in the *American Journal of the Med. Sciences*, on corrosive sublimate and creolin, as follows :

The alimentary canal—thirst, foul breath, metallic taste, red or bluish color and swelling of the gums ; redness, ulceration and sloughing of different parts of the mucous membrane of the buccal cavity ; deep ulcers in the tonsils ; soreness and looseness of the teeth, and sometimes salivation ; vomiting, abdominal pain, tenesmus ; profuse stinking, often bloody diarrhœa. The feces contain mercury. It has been found in numerous cases, after vaginal or intra-uterine injections of a solution of 1.300, followed by the injection of plain water. Even when the solution was so weak as 1.400, it was found in one case, but not in the others. In the majority of cases it is already found the next day ; and it is yet found a long time after discontinuing the use of the bichloride.

The Uropoetic System. There is a marked diminution in the amount of urine, rising to absolute suppression of the secretion. The urine is dark, grumous, contains much albumin, mercury, epithelia cells from the kidneys, and hyaline or granulated casts. The skin is often wet with perspiration, it has been found hyperalsthetic, itching, pale or erythematous. Sometimes there is considerable swelling of the subcutaneous tissue.

The Nervous System. In the beginning the patient is restless, and suffers from insomnia ; later she becomes drowsy, sometimes delirious and finally she collapses. In some cases spasmodic twitchings or cataleptic stiffness has been found in the extremities. The pupils are sometimes contracted as in opium poisoning. Sometimes there is a sensation of being choked. The pulse is rapid and weak, the temperature subnormal. Of these symptoms most characteristic are the diarrhœa, the diminution or suppression of the urinary secretion, the stomatitis, the low temperature and the presence of mercury in the urine and the stools, which may be found by chemical analysis.

The chief changes found after death are hemorrhagic infiltration and extensive ulceration, sometimes diphtheritic patches and sloughs of the large intestines. In some cases a lower degree of inflammation is found in the ilium. Exceptionally the œsophagus has been found inflamed. In some cases there has been found local peritonitis. In the mouth and throat are found the above-mentioned changes.

Another constant change is parenchymatous nephritis. Sometimes deposits of phosphate or carbonate of lime are found in the convoluted or straight tabulæ, but these calcareous deposits are often absent, and may, on the other hand, be found under different circumstances.

In some cases the substance of the brain was found dry ; in others there are extravasations of blood in the meninges.

Aristol.

Aristol (dithymol iodide) is steadily gaining ground as a substitute for iodoform. The following formulæ for its use are quoted from the *Chemist and Druggist*, April 26, 1890 :

I.

℞ Aristol . . . . . 1 part.
Flexible collodion . . . . . 9 parts.

To be used for painting on the skin. Should be dispensed in a dark-colored bottle.

II.

℞ Aristol . . . . . 10 parts.
Olive oil . . . . . 20 parts.
Lanolin to . . . . . 100 parts.

Dissolve the aristol in olive oil and mix with the lanolin.

Bougies are made with cocoa butter, each containing from 2 to 8 grains of aristol. Pessaries contain 6 to 15 grains and are made with the same basis.

Sulpholinic Acid as a Solvent.

According to the *Journal de Médicine*, as quoted in the *Quarterly Therapeutic Review*, Jan. 1, 1890, sulpholinic acid is obtained by the action of sulphuric acid by a complex chemical process on vegetable oils, and is rendered neutral by repeated washings with a solution of chloride of sodium and ether. When concentrated it presents the appearance of a yellowish liquid, with a neutral reaction ; a taste at first sweet, then bitter and astringent. Its specific weight is 1.023. It is soluble in all proportions of alcohol, and miscible with one to two parts of water without losing its oily character. Dissolved in a large quantity of water, it

forms a clear liquid, slightly opalescent, and remarkable for its great affinity for water. It does not decompose, even when heated for some time up to 100° C. At a temperature below 0° C. it is converted into a yellowish mass, which resembles vaseline. It combines with a great number of various substances, which are then either completely soluble in water or readily form emulsions, such, for example, as ether, chloroform, benzine, terebenthine, bisulphide of carbon, oil of mustard and all the etherial oils. Heated or submitted to ebullition, it dissolves numerous organic and inorganic substances, such as sulphur (two per cent.), iodoform (three per cent.), camphor (twenty-five per cent.), naphthalin, chrysophanic acid and numerous coloring matters. These solutions readily penetrate the skin, which completely and rapidly absorbs them. It is thus seen that sulpholinic acid possesses remarkable properties as a solvent, and it is superior to vaseline, oleic acid, glycerine and other vehicles commonly prescribed for external use.

Electricity in Influenza.

Mr. G. Worthington writes to the *British Medical Journal* of May 3, 1890, as follows: "As relapses and fresh cases of influenza are certainly arising, I wish to place on record the very marked benefit derived by my patients by the use of electricity in the neuralgic and rheumatic forms of the affection. In some cases the relief has been immediate and permanent; the pains in the back, groin and sternum, which people have complained of so much, and which have become more or less chronic and defied treatment, have yielded at once to thirty or forty cells of Leclanché's battery."

The Clique of the American Medical Association.

During the Second Day's Session of the American Medical Association's recent meeting, as reported in the *Medical Standard*, June, 1890, Dr. Hooper read the report of the Trustees of the *Journal*, which announced an increased circulation, and favored the continued publication of the *Journal* in Chicago. Dr. Comegys, of Cincinnati, moved that the report be referred to a committee composed of one member from each State and Territory. This was decided out of order and on motion of Dr. Brodie, of Detroit, the report was received. Dr. Comegys then renewed his motion in an eloquent denunciation of the manner in which the *Journal* was run by Chicago and Detroit cliques.

Dr. Seiler, of Philadelphia, seconded the motion in an equally eloquent *exposé* of the absurdities evident in the *Journal's* management. The *Journal* was defended by Drs. N. S. Davis and Shoemaker, after which a motion to table offered by Dr. Keller, of Arkansas, prevailed by a small majority. Dr. Keller, of Arkansas, moved that the constitutional amendment offered by him and adopted some years ago conferring the power of electing their officers on the sections rather than the nominating committee, be annulled and the old rule adopted. He claimed that under the present system some physicians organized as repeaters, went from one section to the other and elected officers.

After a heated discussion, a motion to table, made by Dr. Moyer, was lost by a small majority, the secretary exhibiting peculiar skill as a returning board. Three several points of order directed against the motion and based on its unconstitutional character were made. These revealed the most extraordinary ignorance of the constitution on the part of both president and secretary. Finally it was decided that the motion was constitutionally out of order.

New Hampshire Medical Society.

The New Hampshire Medical Society will hold its ninety-ninth annual meeting in Concord, N. H., on June 16 and 17, 1890. Dr. William Child, of New Hampton, will preside. The programme is an attractive one. Among the papers to be read, we note the following: Beverages of the Past and Present; What shall be the Beverage of the Future—Dr. C. W. Gross, of Milton Mills; Ptomaines—Dr. C. P. Frost, of Hanover; Recent Epidemics of Diphtheria in Keene—Dr. H. K. Faulkner, of Keene; Necrology—Dr. J. J. Berry, of Portsmouth; Medical Men—Dr. Thomas Hiland, of Concord; Railway Hygiene—Dr. G. P. Conn, of Concord.

An exhibition of drugs, chemicals, pharmaceutical preparations, foods, etc., will form an interesting additional feature.

NEWS.

—Dr. Otto Kopetschy, of Jersey City, died on May 29, and was cremated at Fresh Pond, L. I.

—It is reported that a lad, 14 years old, was shot June 7 at Falls of Schuylkill by Dr. E. S. Beary, who mistook the lad for a burglar.

—The ninety-ninth annual meeting of the New Hampshire Medical Society will be held at Concord, N. H., on June 16 and 17, 1890.

—A number of British and American admirers of M. Pasteur, including the Prince and Princess of Wales, have presented him with an album containing their autographs.

—By the will of the late Miss Mary E. Edson, the sum of $10,000 is left to the New York Cancer Hospital; $5,000 to St. Luke's; and $5,000 to the Woman's Hospital.

—Pasteur is reported to have told Miss Kate Marsden, who has been investigating leprosy in Russia, that he can see no ground of hope of making the inoculation process successful in the treatment of leprosy.

—Dr. John S. Butler, one of the oldest physicians in Hartford, Conn., died May 21, at the age of eighty-six years. He was a native of Northampton, Mass., and graduated from Yale College in the class of 1825.

—W. G. Comstock, assistant professor of chemistry at Yale College, while experimenting in the laboratory on Tuesday, burned his hand with a preparation so severely that it will probably have to be amputated.

—The health-officer of Chicago has refused to accept "heart failure" as a cause of death. It is said that 150 death certificates so signed have been returned, with a request for information as to the true cause of death.

—Dr. Perley E. Goodhue, of Haverhill, Mass., died May 19 from malignant diphtheria. He had been attending a child stricken with the disease, and was himself attacked by it in its worst form and died in three days.

—The grand jury made another crusade on June 3, against the adulteration of food in Philadelphia. True bills of indictment were found against six dealers for adulterating, selling and exposing for sale adulterated milk on May 7.

—Sir Morell Mackenzie is said to have been engaged by an American manager to deliver a series of lectures in this country during the coming fall and winter. He is engaged for at least twenty lectures, at the rate of $500 per lecture.

—Chung Lung, a wealthy Chinese physician, 60 years old, was married June 2, in Kansas City, to Ah Gin, a Chinese girl. It is stated that Chung Lung sent to San Francisco for his bride, paying $600 for her to her deputy father or guardian, her parents being in China.

—Dr. R. J. Gatling, of Hartford, Connecticut, desires a contradiction of the report recently sent from Cincinnati to the effect that A. T. Perrine was the inventor of the Gatling gun. Dr. Gatling himself invented the gun, and his letters patent, on file in Washington, are evidence of the fact.

—Surgeon Major G. A. Sternberg, U. S. A., who collaborated with Dr. Findley in getting at the origin, nature, etc., of the yellow fever germ, says Dr. Findley was mistaken in supposing he had solved the problem. The formation that he "got" every time was simply a flaw in the object glass.

—Dr. Arthur H. Wilson, of Boston, died May 11. Dr. Wilson was graduated from Dartmouth in 1863, and became A. M. R. C. S. of England in 1887. He was Assistant Surgeon United States Volunteers from November, 1863, to May, 1866. He practiced medicine in South Boston from 1866 to the time of his decease.

—Scarlet fever and diphtheria are very prevalent in the town of Highlands, near Denver, Col., and the citizens are becoming almost panic-stricken. Among other measures taken to improve the health of the community and to prevent further spread of contagion, warrants have been issued for the arrest of a number of physicians who have failed to report cases of diphtheria and scarlet fever occurring in their practice.

—A recent number of the *Correio Medico*, of Lisbon, tells of the arrest of Dr. Vicente Urbino de Freitas, Professor of Physiology, at Oporto, on suspicion of having poisoned several members of his wife's family. The illness of three members of the family came on after eating sweets and almonds, which were sent to them by post. The total number of murders of which he is accused is seven. The motive for the alleged crime is said to be the acquisition of a large property by the removal of the nearest heirs. Dr. de Freitas is one of the leading members of the medical profession in Portugal.

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COMMUNICATIONS.

PROTECTION IN MEDICINE.[1]

BY J. C. WILSON, M. D.,

PHILADELPHIA.

Mr. President: I undertake the honorable duty conferred upon me, Sir, by your distinguished predecessor in office, with commingled feelings of sadness and hopefulness. The sadness is begotten of that sorrow which we all feel for the calamities that befall our fellow-men as individuals; the hopefulness springs from an abiding conviction in the onward progress of mankind as the result of social organization—a progress in which the medical profession has to-day a larger and more responsible part than ever before. Both sentiments are deeply stirred by the circumstances of this meeting. We remember that this Session is an adjourned one, and our thoughts go back to the appalling calamity by which we were prevented from assembling here a year ago. To be present with you some of us have within a few hours traversed a region made forever memorable by sudden overwhelming destruction and death. The mournful anniversary is scarcely past. A thousand hearts, nay ten thousand, are oppressed with the unspeakable sorrow of the events of that fatal day. Within the range of my voice are many whose spirits bear the wounds of that horrible disaster—wounds that will not heal. It is proper that we should mourn. Men of our own profession, men who would have been with us to-day, were swept away powerless to aid their fellows or themselves in that relentless flood. The few who escaped with their lives, true to the instincts of an enlightened humanity and their profession, bruised and battered as they were, spent the remnant of their strength in heroic efforts

[1] The Address in Medicine before the Medical Society of the State of Pennsylvania at its Fortieth Annual Session held in Pittsburgh, June 10, 1890.

to save and succor their more hapless neighbors. And who first to the rescue? From west and east, without loss of time, over obstacles and through hardships of every kind, with food and clothing, with medicines and surgical appliances, with sympathy and cheer, organizing as they came, doing themselves and teaching others what was to be done and how to do it, came those whose vocation in life is to rescue. I look upon their faces now, and their bravery and fortitude, their skill and gentleness, their manliness and honor fire me with enthusiasm. Hero-doctors, we are proud to be of your craft!

Since its organization in 1848 only once before did this Society fail to assemble at its appointed annual meeting. That was in 1861. The meeting then also was to have been held in Pittsburgh. That likewise was prevented by an unspeakable calamity. Men realized that the country was in the midst of civil war; that the integrity of the Union was not only threatened, that had long been the case, but was actually assailed, and already in the greatest danger.

No time then for learned discussion or scientific debate; much less for friendly meeting and the genial interchange of social courtesies. Cherished institutions, property, life itself, were in jeopardy. Men were hurrying to the front for engagement in actual conflict. Those at home were busy with urgent preparations for war. Physicians were needed in hospitals, surgeons on the field of battle. The men who then composed this body, a few of whom are still with us, long peaceful in piping times of peace, were in no mood to sit in grave dispute while their fellows were in action. So the session of 1861 did not take place. Later things were worse, but the following year the remnant of the Society issued a call for the regular annual meeting which was held in Philadelphia.

I allude to these facts not only as being matters of interest in the history of the Society, but also as illustrating a point which serves my purpose.

The two stupendous calamities which prevented these two meetings of our State Society, and made this the fortieth Session instead of the forty-second as it should have been, were calamities of men's own making. Each of them had been long foreseen; thoughtful men had lived in momentary apprehension of their occurrence; plans by which they could have been averted had been repeatedly and earnestly advanced only to be frustrated by the tenacity of vested rights on the one hand, and a temporizing policy of expediency on the other. The one was political, and while I have no disposition to transcend the limits of my theme, I will be pardoned for saying, for the sake of argument, that had the wrongfulness of human slavery been generally recognized in the early days of the Republic, and the subject radically dealt with, the great Civil War would not have occurred.

The other was a calamity of physics, of bad engineering, which would have been averted by doing the right thing when the right thing to do was first known.

Let me say here, that while the right thing often seems to cause some hardships, and expediency has a specious appearance in pleasing everybody; as a matter of fact, everybody is the loser by expediency, and all gain by doing right for the right's sake. Of this more later.

We are not assembled here simply as individuals in search of the pleasures of social intercourse, though in these reunions the renewal of old acquaintances and the making of new friendships plays a large and useful rôle. Nor are we here merely as medical men, who seek in friendly interchange of thought and experience to increase our knowledge and enrich our skill as individuals, though by our good fortune these meetings enable us to do both. We are here as members of a great profession, the organization of which is rendered possible by our organization, and by the relation of this body to the minor societies whose delegates we are, on the one hand, and on the other to the American Medical Association. The stated meetings of these various bodies have an importance not apparent to those who overlook the fact that they are the functions by which the profession as an organized body manifests its life. Without them, disintegration. With them, interdependent life, ceaseless activity, a purposeful and powerful profession, noble in itself, and capable of the highest usefulness to the Society in which it exists, and of which it forms an honorable part.

Forty-two years ago a little group of earnest men organized the Medical Society of the State of Pennsylvania. To-day its members and delegates comprise the greater part of the profession of the State. We are a harmonious body. If there be differences, they relate to details rather than to princi-

ples. We are in close accord among ourselves that our influence must be exerted in the direction of broader knowledge and higher skill among the members of our profession, and in the direction of the highest dignity, the greatest good, and that consistency which commands respect, on the part of the profession itself.

To realize these aims we must see to it that the profession is protected. It requires protection both within itself and in the approaches to it.

I venture to depart from the customary form of the *Address in Medicine*, to bespeak your attention for a few moments to this subject. Protection in medicine is a necessity that needs no argument. It is necessary to the very existence of the profession itself. That this is well understood is shown by the stringent safeguards by which medicine is surrounded in older and more disciplined countries than ours, where certain social problems now engaging our attention have been thoroughly worked out, and by the efforts made in this direction by the profession in this country from the earliest days. It is necessary in a far higher degree to the public, who are the real sufferers from unrestricted license and free trade in matters that touch the general and personal health. But the public is apathetic in this matter. The cares of this world, the pressure of affairs, the mysticism of quackery, the allurements of charlatanism blind the attention of the people to evils that largely affect their lives and happiness—yet more, if it were but known, their pockets.

The very fact that a diploma is esteemed a necessity to the practitioner shows the universal demand for some sort of evidence that the doctor knows something. But there are diplomas and diplomas, just as there are colleges and colleges.

The demand creates the supply. The possession of a sheepskin no more certifies to learning than a new suit of clothes indicates riches. Both can be had for a small sum of money and each often represents the total assets of the owner. The protection afforded by a diploma is in fact no protection at all. At this point we encounter the power of vested rights. Many of the colleges insist that the degree which they by virtue of their charters confer, and the diploma which attests the fact, have always conveyed and must still continue to convey the license to practice; and the poorer the college and the larger the proportion of its graduates to matriculates, the louder the clamor, and the fiercer the opposition to measures of reform.

The next step in the direction of protection is registration. By this means itineracy is hampered. The possession of a diploma or the experience that comes of a number of years of practice without one, are requisites to practice under the registry laws. But the vital question of proficiency, even of a minimum technical knowledge is not touched. The Registrars in most cases have neither the knowledge nor the power to discriminate as between the colleges granting diplomas; they are only required to know that the colleges have been legally incorporated. Where, as in the State of Illinois, the graduates of *Colleges not in good standing* are not granted a license without examination, the schedule by which the standing in different institutions is rated is absurdly low. (See Report of the Illinois State Board of Health, 1889.)

There remain two other plans of Protection in Medicine, both of which are now undergoing trial on this continent, with encouraging results. These are: first, the appointment by the State or by the proper authority within the State, of a board of examiners to examine irrespective of diplomas the candidates for license to practice; and second, the organization of the entire profession in each State into an electorate, which shall send representatives to a central body having full control of all questions relating to medical education, examination, registration and license.

Under the first of these plans the entire question of registration is placed in the hands of the board of examiners appointed by the Governor or by the State society. It is obvious that such a board, to be effective, must constitute the only means by which an applicant can obtain a license to practice. There are now in the United States twelve licensing and examining bodies that do not give instruction. The practical working of this plan as shown in North Carolina, Virginia, Minnesota and other States, presents few difficulties, and it constitutes an effective barrier against the inroads of poorly qualified holders of diplomas. The duties of such boards are clearly defined and their operation is simple and effective. There is no doubt that in the course of a short time this plan will be widely adopted. As Dr. Rauch, Secretary of the State Board of Health of Illinois, has shown in his last report, the

operation of this plan has already been productive of beneficial results not only upon the profession itself, but also in the general tendency among the colleges in the direction of raising the standard and lengthening the term of study. The obvious defects of this plan are, first, that its powers are too limited, there being no control of preliminary and special education; and, second, that the appointment of boards is liable to non-professional political influence. The records of the State Medical Board of Virginia for four years ending October, 1888, illustrate the efficiency of this plan as compared with former methods. Of 240 candidates presenting themselves for examination and holding diplomas, probably of colleges in good standing, 54 or 22 per cent. were rejected. Those who advocate this plan know that Dr. Rauch, to whom all praise is due for his earnest and efficient labors in the cause of an improved medical education, has urged the establishment of a uniform series of regulations for examining boards in all the States throughout the country. Notwithstanding the rapid increase of population in some of the more newly settled States, and the rapid tendency to uniformity of social organization, the day must be far distant when uniform requirements for the practice of medicine throughout the land will be either practicable or endurable. The boundaries of the States define territory sufficiently large for uniform regulations upon this subject. Each State should define requirements in accordance with the necessities of its population. Practitioners desiring to establish themselves under the jurisdiction of a new board must prepare themselves to meet the requirements of the new board, and pass its examination.

The second plan is less generally known although it has been tried for many years in the Province of Ontario, Canada. It was fully described by Osler in an address entitled "License to Practice," delivered to the Medico-Chirurgical Faculty of Maryland in the spring of last year. My account of this plan is drawn largely from Prof. Osler's address. It appears to me so practical, so closely in accord with the requirements of the profession and so completely to meet in every particular the difficulties of protection in medicine that I am surprised that it has attracted so little attention in the general discussion of the subject.

To carry into effect such a plan would demand the enactment of laws meeting all its requirements and a general act of incorporation of the profession as a body in each State. It is desirable not only in theory but in practice that the State Board should be composed of representatives from electoral districts rather than appointed by the Governor or the societies. Such a board should have full jurisdiction of all matters appertaining to medical education. The counties or other territorial districts which might be made, should send a limited number of representatives to the Board, depending upon the population of each district. The electors and, as a matter of fact, the representatives would be constituted by registered practitioners irrespective of schools. The Governor of the State would issue the first warrant for the election, which would subsequently be the prerogative of the executive of the Board. The number of representatives should be determined by the medical constituency in each electorate as previously arranged. Representatives should be elected for a term of four or five years, and members should be eligible for re-election. Universities and schools should be fully represented on the Board. It would be necessary to return members from each of the generally recognized divisions which at present constitute practitioners. There would be active electioneering and a good deal of log rolling, some political trickery without question, but I agree with Osler in thinking that on the whole that it would be found that such an election could be conducted with tolerable purity. To such an organization might be safely entrusted the full control of all questions relating to medical education in the State, and, within certain limits, questions of public health. It would correspond to the Synods and Conferences of the various religious denominations, with powers accurately defined by legislation, including the right of appeal to court for the infliction of certain penalties, such as the revocation of the license to practice in flagrant cases. The important ordinary duties of such a board would comprise the regulation of the requirements of matriculates; the course of study in the colleges; length of terms; the final examination of applicants to practice and the granting of the license. The necessary expenses would be met, first, by the fees to be paid by the candidates for examination, and, secondly, by a small annual tax levied upon all registered practitioners. Such bodies would, in a brief time, become

permanent establishments in the States, with buildings properly equipped for examinations, the necessary arrangements for conducting in an orderly and systematic manner the business of the profession and a permanent resident secretary. Such boards would determine the minimum standard of education necessary to enter upon the study of medicine, and in so doing would establish a guaranty of uniformity which cannot be expected in the schools. For the preliminary examinations independent teachers would be preferable to professional men, and the examinations should be held in different parts of the State. Such examinations would effectually prevent the entrance of men lacking the early training requisite for professional study.

I refer, at this point, to the subject of expediency. The hardship of preventing an ambitious but ignorant man from entering upon the study of medicine is apparent rather than real.

There would be, as a matter of course, great diversity of opinion in regard to the selection of the examiners for license to practice. The difficulties in this direction arise from the want of suitably trained men outside of the teachers in the schools, but those difficulties are not insurmountable. By systems of numbers for written examinations, and the presence of two examiners at all oral examinations, impartiality would be secured. In the scientific branches it would be almost impossible to find in the general profession examiners having the necessary training; on the other hand, there are an abundance of men in every State fully capable of conducting the examinations upon the clinical branches. The difficulties relating to the differences between the various schools of practice, which at present seem to many insurmountable, are rather imaginary than real. A uniform series of examinations in anatomy, physiology, chemistry, pathology, morbid anatomy, practical obstetrics, surgery and medical jurisprudence should be passed by all applicants. In the subject of therapeutics only should there be different examiners to meet the requirements of the schools. Upon application it would be necessary for the student to indicate whether he desired to apply for an examination in therapeutics as a regular, as a homœopath, or as an eclectic, and if successful his name should be placed upon the State register in accordance with his choice.

In regard to the working of this plan in the Province of Ontario I quote the following statement from the address of Prof. Osler. "It practically hands over to the profession, through the elected representatives, the management of their own affairs so far as they relate to preliminary and professional examinations and certain disciplinary enactments. In spite of the strenuous opposition on the part of many who felt that it was a most degrading thing thus to lop the important privilege hitherto held by the Universities which enabled graduates to obtain license without further examination; in spite of dissensions and dissatisfaction such as are almost inevitable in connection with a new organization, the Board has persisted in its good work and to-day, after 23 years of existence, it has a record of which the entire profession of the Province is most justly proud. On no point was opposition more bitter or more prolonged than on the admission to representation of members of the homœopathic and eclectic bodies. But wise counsels prevailed and representation remained general, as it was, though it is true, I believe, that the eclectic body no longer has practitioners enough in the Provinces to send a representative.

"The influence which this organization has exerted has been in the highest degree beneficial, and the schools now accept the inevitable with a perfectly good grace. The Board possesses a magnificent central building in which to conduct the examinations, with offices for registration, and rooms for a Provincial Library. The fees from the examinations and a small annual tax levied on each registered practitioner has proved a source of ample income. The same condition, with modifications, exists in the other British Provinces."

One or the other of these plans, perfected in detail or modified to meet practical requirements is urgently needed by the profession of this State. To secure the enactment of the requisite laws we must have a united profession. Unanimity means concession. In this matter concession must be in the direction of the public welfare. I believe the colleges are ready; I know that many influential members of the faculties of the more influential schools are earnest advocates of reform. The material interests of our schools will be substantially furthered by measures which will effectually end the competition of the cheap two-term schools of neighboring States. But higher motives carry greater weight.

Hereafter the diploma will be a less imposing document. It will become a certificate of scholarship, valuable only in proportion to the standing of the school by which it is issued. License to practice will be granted only to those who are proficient without regard to the school in which technical knowledge and skill have been acquired. Examinations will not be too rigorous; no catch questions will be permitted; and fundamental knowledge only will be required.

There must be, however, no talk of concessions to those who delight in calling themselves eclectics and homœopaths. Their representations must be of right. Their rights under the law are the same and equal with our own, and must be at once and fully recognized—but no more. In the wholesome atmosphere of higher knowledge the fetich of names and the shibboleth of dogmas will lose their fascination.

The long work of our Committee on Medical Education is about to bring forth fruit. The times are ripe. Upon us rests the responsibility of throwing the influence of a united and harmonious profession into the final struggle. I fear no great catastrophe, we shall have neither internicene war nor irruptions of Goths and Vandals, but the open gateway to the medical profession is an abiding calamity to a great commonwealth.

ABORTION FOLLOWING THE GRIPPE.

BY CLARENCE KING, M. D.,

PHYSICIAN AND SURGEON TO THE CATTARAUGUS CO. INSANE ASYLUM, ETC., MACHIAS, N. Y.

In the Medical and Surgical Reporter, April 26, 1890, I notice a communication from Dr. W. D. Banks, of Mifflintown, Pa., detailing the history of several cases of abortion following the grippe, which have occurred in his practice. His experience has been so nearly identical with mine that it may appear superfluous for me to narrate the following cases; yet, as the relation between the diseases and abortion has not apparently been observed by the majority of physicians, I am induced to report my observations.

The epidemic reached our town about the first of January, and spread rapidly, being at its maximum during the month of February. Since that time I have had several cases illustrative of the tendency which the grippe seems to have to producing abortion, and know of other instances where this has occurred in the practice of my professional neighbors. This list includes all the cases of abortion or threatened abortion which have come under my care since the outbreak of the epidemic; and I have not had a case of the grippe in a woman in which I have become aware that pregnancy was present that is not mentioned in this paper. These cases were widely separated geographically, in distant parts of the town, and occurred during a period of about nine weeks from first to last. They all, however, followed the grippe in from seven to fourteen days, and if there was any other cause to account for the premature termination of pregnancy in any of the cases, I failed to discover it.

Case 1. Mrs. F. L., multipara, third month of pregnancy, had had one abortion about three years ago. She had the grippe about the middle of January, and on the thirtieth was taken with a dull aching pain in the bowels, which she at first attributed to constipation. February 1, pains became more severe, and when I saw her the fetus had been expelled. The afterbirth was removed instrumentally, and she made a good recovery.

Case 2. Mrs. A. K., multipara, third month of pregnancy, had never had an abortion. Her two children were very sick with influenza and she became very much exhausted in caring for them. Before they were well she was taken sick with the disease and had very violent coughing spells and high temperature. Abortion did not occur until nearly two weeks after. The fetus was expelled with very little pain or hemorrhage, but the afterbirth was left behind and I removed it with forceps.

Case 3. Mrs. E. S., 20 years old, primipara, healthy, four or five months pregnant, had been troubled a great deal with nausea and faintness and other subjective evidences of pregnancy. About March 20, she was taken with the grippe, the attack lasting about a week. April 9, labor-pains came on, and within a few hours, while at stool, she expelled the fetus with the sac unruptured. Part of the placenta was also dragged away with the fetus. I removed another portion of the placenta with forceps, but, owing to to the difficulties present, I did not get it all away. Another fragment was expelled a few days later. The patient made a good recovery.

Case 4. Mrs. A. J., about 28 years old, multipara, had never had an abortion. Her menses ceased about six weeks before her attack of grippe, which was not very severe. A few days later she was taken with paroxysmal pains in the bowels with some little "show." Under rest and opiates the pains finally ceased and gestation has continued without interruption.

Case 5. Mrs. I. S., 22 years old, mother of four children, was in the ninth month of her fifth pregnancy when she was taken with the grippe, but she did not have a very severe attack. In a few days she was taken with severe abdominal pains and, thinking "her time had come," she sent for me. I found the os dilated so as readily to admit the finger, but the pains gradually wore away, and she carried the child for three weeks before being confined. With her other children she had never been troubled with false pains, and in this case she had distinct though feeble uterine contractions.

Case 6. Mrs. G. R., strong and healthy, mother of two children, had never had an abortion. Her last menstruation was about six weeks before she was taken with the grippe. She suffered quite severely with pain in the head, back and limbs, and had high fever. Soon after getting better she aborted. The fetus was about an inch long. She had considerable hemorrhage, and I removed the membrane with the hand. The patient made a good recovery.

Case 7. Mrs. W. H., mother of two children, had had one abortion. When about three months pregnant she had the grippe, and ten days later she was taken in labor. The fetus was expelled after about forty-eight hours, and the placenta a few hours after.

Case 8. Miss V. C., primipara, about six weeks pregnant, had had the grippe nearly three weeks before she "came around." The fetus was expelled with some pain and profuse flooding. Recovery was good. I have no reason to think this was not an accidental abortion, as the patient was undertwitted and was closely watched, day and night, for two weeks before the abortion occurred.

Invention of the Microscope.—The third centenary of the invention of the microscope will be celebrated this year at Antwerp, where a historical exhibition of microscopes will be held.

THE THERMOMETER IN OBSTETRICS.

BY PETER McCAHEY, M. D.,
PHILADELPHIA.

The importancc of thermometry in obstetrics cannot be over-estimated. In medicine the thermometer is the infallible guide of the physician; but in the lying-in room it is of especial value. Unfortunately it is seldom used there, except to mark the progress or decline of the diseases of the puerperium. And yet its early use, its routine use, before delivery, even before labor has begun, is of the utmost importance. If the temperature of every pregnant woman were ascertained before delivery, thousands of cases of so-called puerperal fever would be correctly diagnosed as typhoid fever, or malarial fever, and much suffering would be avoided, many lives would be saved and many professional reputations would be preserved.

It must be remembered that pregnant women are as susceptible to the poison of typhoid fever or malaria as are any other persons; and if it be true that exhaustion renders the system less able to resist these poisons, then they are more susceptible to them than others; for, in some cases, no exhaustion can compare with that which is incidental to the pregnant state.

Under the present method of managing obstetric cases a woman who has contracted malaria or who is developing typhoid fever is taken in labor. She is attended by a midwife who never saw a thermometer, or by a physician who never uses one unless a patient is "sick." Her quickened pulse is regarded as due to "nervousness" or the "progress of labor." Lack of appetite, headache and other evidences of ill-health, of which she may have complained to her friends, are ascribed by them to her pregnancy and are not mentioned by her to the physician if there be one in attendance. In a few hours labor is over. The loss of blood accompanying it and the ensuing uterine involution acts as an antipyretic and masks the fever for a time; but the disease persists, and, in a few days, breaks out with renewed force.

The physician is hurriedly sent for, and when he arrives he finds all the symptoms of elevated temperature and he *then* uses the thermometer. The family demand to know what is the matter, and as the

patient has a "fever" and is in the puerperal state, he is reluctantly compelled to inform them that she has "puerperal fever." If the family are familiar with the latter-day teachings of some eminent obstetricians, who say that puerperal fever is never autogenetic, they will charge that the fever was carried to the patient by the physician, and he falls several degrees in their estimation. Should the case result fatally he is, to a certain extent, held responsible by them for the woman's death.

In the meantime the physician believing the fever to be essentially a "puerperal" one proceeds to vigorously attack the germs which he imagines are lodged somewhere in the uterine cavity. Gallons of strong solution of bichloride of mercury are injected into that part of the body, regardless of the danger that the bichloride may have a stronger affinity for the tissues than for the water in which it is suspended, and he may leave it to be absorbed by them and cause the very death that it was employed to avert. In many cases it does produce an irritative inflammation, increasing, instead of lessening, the fever. This, in turn, is taken to mean an invasion of a fresh area by the germs, consequently more injections are given and a still higher fever results. So the vicious circle widens until the grave is reached.

How different would be the result if the thermometer were uniformly used at the first visit, as advocated in this paper. If at that visit, the temperature were found to be above normal, the patient or her friends would be told, at once, that she had a slight fever, and the appropriate medicines—aconite, veratum or quinine—could be ordered immediately, regardless of the state of labor. After delivery the medication would be continued, and if the fever remained, preparations would be made at once to treat a prolonged disease. It would be known that the fever was not due to the entrance of germs into the uterine cavity, as the disease was detected before that cavity was opened, and no uterine injections would be used. The family would not be unnecessarily alarmed by the frightful term of "puerperal fever," and the physician's reputation as a skilful guardian of his patient would be increased and not lessened.

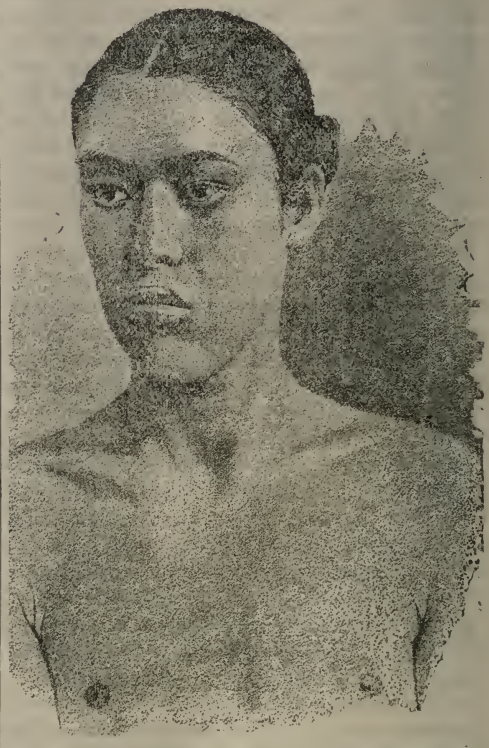
Above all, as a correct diagnosis had been made, no time would be lost in instituting appropriate treatment, and the probability of recovery would be much greater than under the old method of waiting for a week and then injecting, in the dark, antiseptics intended to destroy germs that did not exist, or prescribing the latest novelties for a disease foreign to that with which the patient was affected.

304 North 18th Street.

HERMAPHRODITISM IN THE MALE.

TRANSLATED BY ENRIQUE SOLÓZANO, M. D.

On August 4, 1889, a person named Guadalupe Vargas was brought to the Seventh Station of Police in the City of Mexico, charged with rape, by Vicente Rodriguez. It seems that the day before Guadalupe Vargas took a walk with "la Rodriguez," and they both became intoxicated with pulque. When the evening came "la Vargas" proposed to "la Rodriguez" to sleep in her room; and the latter did not object, as they both were women.

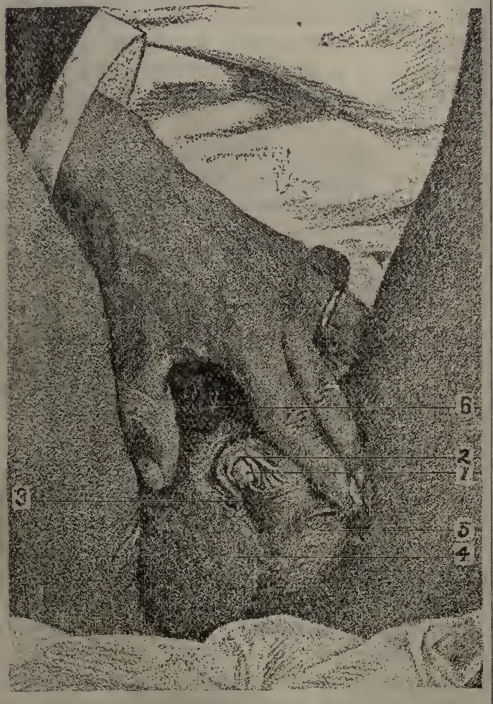


As soon as they went to bed, la Vargas tried to have connection with la Rodriguez, which produced a scandal and caused la Vargas to

be taken to the police station. An examination was made by Dr. Araujo, who did not find sufficient cause to hold la Vargas in prison, and she was released. Later on Dr. Egea heard of the case and found that the person Vargas had had, when younger, an attack of the measles and had been left almost an idiot, deaf and unable to speak clearly, and so he could not get very much direct information about the case.

Vargas was supposed to be a woman, 22 years old. When born the mother, ignoring its true sex, dressed the child as a girl. At present Vargas is tall, slender, with rather feminine features, a form like that of a man and a voice like that of a woman. There is sexual attraction towards women. In the sexual orgasm ejaculation takes place through an inferior opening similar to that found in all cases of hypospadias.

The circumference of the pelvis measures 86 centimeters (34 inches); the length of the penis seen in the illustration, in repose,



is 3½ centimeters (an inch and a half); it has no urethra, but is covered with a well-formed prepuce, and the two corpora cavernosa, can be easily felt. The circumference of the penis at the root is 4½ centimeters (an inch and three-quarters). The circumference of the corona is 3 centimeters (an inch and a quarter). The length of the perineum is 6 centimeters (two and a half inches). The distance from the root of the penis to the opening of the supposed vulva is 2½ centimeters (one inch). The antero-posterior length of the opening which simulates a vulva, is 3 centimeters (an inch and a half). The depth of the opening, measured with a female catheter, as the finger causes great pain and does not reach the bottom, is 8 centimeters (three and one-eighth inches). By rectal touch it was easily ascertained that there was no uterus, but there was a prostate gland about the size of a chestnut. A male catheter was introduced into the bladder and a quart of urine was extracted. The scrotum contained testicles, each of fair size. The mons veneris was well covered with hair.

From the description and by the aid of the illustrations which have been reproduced from the *Gaceta Médica*, of Mexico, April 15, 1890, it will be seen that this was a case of hypospadias with a rudimentary penis.

Society Reports.

PENNSYLVANIA STATE MEDICAL SOCIETY.

Fortieth Annual Meeting, at Pittsburgh, Pa., June 10 to 13, 1890.

First Day, June 10.

The President, Dr. J. B. Murdock, of Pittsburgh, took the chair and called the meeting to order, and the Rev. David Jones, D. D., made the opening prayer.

Dr. E. A. Wood, of Pittsburgh, then delivered the

Address of Welcome.

In it he made a plea for the exchange of views and experiences of different medical men, and for the support of medical societies—County, State and National. He pointed out the error of the notion that the societies are for the physicians of the larger towns and not for country practitioners, and advocated a fuller representation of the actual experience of the country physicians who often, from modesty, keep back.

Dr. Wood then stated that the physicians of Johnstown requested that one of their number be allowed to present a brief paper.

On motion rules were suspended.

Dr. George W. Wagoner, of Johnstown, then, for the Cambria County Society, testified to the noble charity of the physicians of Pennsylvania, whose members are represented in the Society. He described the horrors of May 31, 1889, when flood and fire devastated Johnstown, and the remains of memory and the reproduction in dreams which still linger amid the inhabitants. He spoke of the prompt and full sympathy with which the State and the country responded to their need, and the first help and money brought from Philadelphia by Doctors Mills and Mays, and the large appropriation of the State Medical Society. After a graphic account of the first medical effort at Johnstown, he said that no member of the Cambria Society deserted his duty, no matter how great his bereavement; and helpers from other parts of the State came to the help and rescue of their brethren at Johnstown. He paid a special tribute to the work of the Philadelphia branch of the Red Cross Society and its leader, Prof. Pancoast, which organized a hospital, maintained it for a long time and then turned over the property to the Cambria County Society, which has been enabled to perpetuate the hospital and to continue the work it began. After this followed a warm tribute to the memory of Drs. H. W. Marbourg, J. C. Wilson and G. C. Brinkey, who were members of the Cambria County Medical Society, and a fair tribute to the three homœopathic physicians who lost their lives at the same time.

The total amount of money contributed by the various county societies in Pennsylvania, and distributed at Johnstown, was $8,419.23.

Dr. Wagoner's address was then referred to the Publishing Committee and ordered to be printed.

Dr. Edward Jackson, of Philadelphia, reported the meeting of the American Medical Association and suggested the organization of State delegation at time of meeting of the State Society, and that this should not be postponed until the time of meeting of the American Medical Association.

Dr. Jackson then read, for Dr. Allis, the

Treasurer's Report.

Dr.

Cash on hand at beginning of present year,	$1,636 33
Receipts for fiscal year,	2,128 90
	$3,765 23

Cr.

Expenditures,	$3,566 71
On hand,	198 52
	$3,765 23

The small balance left over was due to the fact that last year the Society (in its short meeting) had voted $1,000 to the sufferers from the Johnstown flood. The report called attention to the fact that some county societies pay their assessments promptly and that all should do so. The Treasurer reported that the county society of Lackawanna had not paid at all, while the Snyder County Society had paid only a part of its assessment.

Dr. Bishop moved that the Secretary be requested to present a report of the meeting of the State Society in 1889, and that this report and that of the Treasurer be referred to the Auditing Committee. Carried.

Dr. Jackson read the report of the Publication Committee, announcing the printing of 2,353 volumes, at a cost of $1,322.56. $135 of this expense was for maps of one paper. Seven counties, the report said, did not attempt to furnish lists of registration of physicians as provided in the rules of the Society.

Dr. Allyn, of Allegheny County, read a carefully-prepared report of Allegheny County Medical Society, with a full account of the Johnstown disaster. The report was referred for publication to the Publication Committee.

Dr. E. A. Wood called attention to report of the proposed Constitution and By-laws for Society.

Dr. Dulles then moved the adoption of the resolutions proposed in its report by the Committee on Publication:

I. That hereafter every motion directing an expenditure of funds, shall appropriate a definite, carefully-estimated amount or so much thereof as may be required for the purpose indicated. And that all appropriations of money not accompanied by such an estimate of amount shall be referred to the Publication Committee.

II. To omit publication of list of registered members in the Transactions.

III. That the resolution requiring the printing of the original programme of the meeting of the Society in the Transactions be rescinded.

The resolutions were adopted.

Dr. E. A. Wood moved that all resolutions that have just been passed be referred

to Committee on Constitution and By-laws, that they may be incorporated in the Report of that Committee Carried.

Afternoon Session.

Dr. James C. Wilson, of Philadelphia, delivered the

Address in Medicine.[1]

In opening he referred to the heroism of the medical men of Johnstown at the time of the flood last year, and alluded to the postponement of the meeting which was to have been held in 1862 in connection with the postponement of that of last year. From the cause of both postponements he drew the moral that damage comes from preferring expediency to principle. From this he urged the importance of protecting the community from imperfectly educated physicians, and the depriving the diplomas of medical schools of the character of licenses to practice. He discussed the appointment of State Boards of Examination and a plan for their selection.

Dr. T. J. Mays, of Philadelphia, read the

Address on Hygiene.[2]

He discussed the relation between artificial inoculation and pulmonary consumption. He argued strongly against the theory that phthisis is a contagious disease—in the usual acceptation of this term—and cited the experience of a number of hospitals for consumption and statistical inquiries in Europe to support his position.

Dr. Ernest Laplace (a guest of the Society) described, at length, the fundamental facts of experimental investigation of tuberculosis, referring to Villemin and his injections and Koch's discovery of bacillus.

Dr. Flick called attention to a few points of what he called sophistry in Dr. Mays's able address. If tuberculosis is a contagious disease preventive measures will prevent its spread. Such measures are adopted in all well-regulated consumption hospitals and, therefore, nurses and doctors don't often get consumption.

Dr. J. C. Wilson assailed the fundamental proposition of Dr. Mays's paper that if a disease be contagious those most exposed will be most liable to contract it. Scarlatina is unquestionably contagious and yet none of us will admit that those most exposed to it are most likely to contract it. This he attributed to natural insusceptibility and acquired insusceptibility by a previous attack. Similar insusceptibility is found in the case of tuberculosis. Dr. Mays's statistics, he said, are cited in such a way as to furnish *ex parte* evidence and do not justify the conclusions to which he comes.

Dr. John Aulde emphasized the insusceptibility of certain persons to tuberculosis. He would use the word "contactuous" in describing this occasional mode of communication.

Dr. Dulles said that his opinion is substantially that expressed by Dr. Mays and Dr. Aulde. He said that, if there is any value in definition and in having fixed meaning in scientific terms, it is not proper to apply to tuberculosis the term contagious. He had gone over the evidence with care—without entering into any public discussion in regard to it—and had come to the conclusion that the argument of those earnest and conscientious men who believe tuberculosis to be contagious do not prove this to be the case.

Dr. Mays closed the discussion and said his statistics were carefully and impartially collated and his fundamental proposition that those most exposed to a contagious disease are most liable to contract it had not been weakened at all by what Dr. Wilson had said.

Dr. J. M. Batten, of Pittsburgh, read a synopsis of

340 Cases of Labor,

containing an interesting summary of his experience in confinement.

Dr. D. Longaker spoke on the subject, and advocated early use of forceps.

Dr. Dunmire asked how many still-births occurred in the cases in which Dr. Batten used ergot?

Dr. Batten replied.

Dr. Blackwood announced that he had a charge against a member whom he did not name, and moved that it be referred to judicial council. The motion was carried.

The Secretary read an invitation from the Mississippi Valley Medical Association to attend its next meeting, which was, on vote, accepted.

The Secretary read an invitation from the

[1] Published in full in this issue of the Reporter.
[2] Published in full in the Reporter June 14, 1890.

Berks County Medical Society to the State Society to hold its next meeting in Reading. On motion, it was referred to the Committee on Nominations.

In accordance with the resolution of the morning session, Dr. Atkinson, Secretary, read a report, in the form of minutes, of the meeting of the Society in 1889.

Dr. Bishop moved these minutes be approved and the action of the meeting be confirmed.

Adjourned.

In the evening Dr. Murdoch, of Pittsburgh, delivered his

Presidential Address.

He said that when a year ago details of the Johnstown disaster were coming in, resolutions were adopted that emptied the treasury and the Society adjourned its meeting, and that the history of medical societies has no brighter page than the extension of help and sympathy to suffering brethren. Every year advances of the medical profession were made and a yearly pilgrimage was made to some convenient point, where scientific views could be exchanged. He spoke of the danger of quacks and the value of the services of regular physicians.

He expressed an unfavorable opinion of the principle of the Medical Examiners Board and recommended the abrogation of restrictive laws, holding that the sooner the medical profession is rid of the legislative ideas governing it the better. The profession, however, should keep its skirts clear of any irregular practice of any description.

Second Day, Wednesday, June 11.

Morning Session.

Dr. Flick moved the Report on Hydrophobia which the Society in 1888 asked Dr. Dulles to make, be made after the Address on Laryngology. Dr. Daly being absent, the Report was called for at once, and

Dr. Dulles then spoke on

Hydrophobia.

He referred to a case of so-called hydrophobia in New York, June 9, and attributed the death to fear, the statement of the physician to the patient that he had hydrophobia, and to the use of restraint, morphia and chloroform in Bellevue Hospital.

He then spoke of the increase of cases of hydrophobia and of the fear of it in countries where Pasteur Institutes were established, and regretted that two such institutes had been recently established (one by Gibier, in New York, and one by Lagorio, in Chicago), and that already the cases of supposed hydrophobia and of danger of having it had multiplied enormously. He said that formerly there was hardly any hydrophobia in the United States; and medical men could not be indifferent to the effect of these institutes. He also spoke of the great amount of hydrophobia in France, where Pasteurism prevails, and the almost total absence of it in Germany, across the Rhine, where Pasteurism is not accepted. He strongly deprecated an attitude of indifference towards these circumstances and the possible effect of the introduction of Pasteurism in America.

Dr. Laplace said that scientific discussion of the Pasteur method is out of date. The absolute results of inoculation which causes death with absolute certainty in every case in 8 days—or 11 days—proves this, and settles the question. As to the results of Pasteur's method, he said in Russia, before Pasteur's method was used, 83 per cent. of all peasants bitten by a rabid wolf died of hydrophobia and now only six per cent. die. He denied the truth of statistical statements by Dr. Dulles and said that the difference between France and Germany was due to the fact that in Germany all dogs are muzzled. He also said that persons who had not made experimental inoculations had no right to express opinions about the subject.

He said that Victor Horsley and other investigators of England had repeated all the experiments of Pasteur and confirmed his conclusions. He was so convinced of the danger of hydrophobia and the efficacy of Pasteur's method that, if bitten by a dog, he would rush to Pasteur or to Gibier.

Dr. Early reported a case of spurious hydrophobia.

Dr. Hanxt said he had been to Paris and been told that Pasteur only inoculated those who were bitten by dogs certainly rabid.

Dr. Dulles, in replying, regretted that the correctness of his statements had been called in question by Dr. Laplace, and asserted their accuracy and reliability. He objected to the style of Dr. Laplace's criticism, as shown in his sneering comment the day before on the argument of Dr. Mays in regard to the non-contagiousness of phthisis, and as exhibited to-day in commenting on

the remarks on hydrophobia and Pasteurism. He also took up the fact, which Dr. Laplace admitted, that there was almost no hydrophobia in Germany, and asked how much better to have the muzzle and no hydrophobia than to have Pasteur and more of it than was ever known before. He deprecated the supercilious attitude sometimes assumed by laboratory experimenters to those who were engaged in actual practice, and the exclusive manner in which they insisted upon notions derived from the study of disease in test-tubes and rabbits and white mice. He asked if Dr. Laplace still believed in the Brown-Séquard testicular therapy.

Dr. Love, of St. Louis, was by vote invited to take seat on platform.

Dr. W. H. Daly, of Pittsburgh, read the

Address on Laryngology,

in which he opposed the influencing of young men by those older, and intimated that he had had actual experience in being overawed and controlled by men who acted as despots to younger men. He urged independence of thought and action upon the younger members of the profession. He referred to the conflict over the case of the Emperor Frederick and deprecated the professional quarrel which arose over it. He said he knew Dr. Morrell Mackenzie and praised him highly. He expressed again his opinions in regard to the proper treatment of hay-asthma by putting the intra-nasal tissues into a healthy and normal condition.

Dr. J. A. Lippincott, of Pittsburgh, showed and explained the use of an

Intraocular Syringe in Cataract Extraction,

made of glass and soft rubber. He spoke of the advances made from time to time in the methods of medicine and surgery, and especially of the improvements in the operation for cataract as devised by the immortal Von Graefe. The most important was the introduction of fluids into the anterior chamber after removal of the lens. He began to practice this in 1888 and since then has applied it to 57 cases. The results were very satisfactory and obviated certain disadvantages of the usual method.

Dr. Lawrence Flick read the

Report of the Committee on Medical Examiners,

reciting the history of the bill which was presented to the Legislature of Pennsylvania, and reporting the names of members of the Legislature who voted against the bill.

Dr. Roberts moved that the report be accepted and published in full in the Transactions and that the appropriation asked for be granted—$104.10.

Dr. Dulles moved that in printing the report the record of votes in the Legislature be not printed.

Dr. Early moved that the whole subject be laid on the table. Lost.

Dr. Flick and Dr. Roberts opposed the amendment proposed by Dr. Dulles.

Dr. Packard spoke for the amendment.

Dr. Bishop favored the amendment.

Dr. Woods, of Erie, wanted a list so that he could vote against every man in his district who voted against the bill.

Dr. Waugh moved that the amendment be laid upon the table. Carried.

Dr. Roberts' motion was then adopted.

Dr. McCormick introduced a resolution:

Resolved, That the Presidents of the different County Medical organizations entitled to representation in this Society shall constitute a committee which shall be known as the Legislative Committee. The President of the State Society shall call a meeting, at some convenient point, of this Committee, as soon as possible after the adjournment of this Society. At this meeting the Committee shall organize by the election of such officers as they may think proper and take such action as they may deem best to secure the passage of a medical law that will give protection to the people of this State against incompetent practitioners of medicine. The necessary expenses of the Committee to be paid by the State Society. Provided, that in the event that the President of any County Society neglects or refuses to serve, the Chairman of the Committee shall appoint some one to represent that county. Carried.

Dr. Samuel Ayers, of Pittsburgh, read the report of the Committee on the

Management of Pennsylvania Hospitals for the Insane,

in which he said that the Committee had not been able to make any full report because it could not have a meeting.

Dr. E. A. Wood offered as a substitute for the report the following:

Resolved, It is the sense of this meeting that the Medical Superintendents of our State insane asylums should be restricted exclusively to the treatment of the insane

inmates, and also that one or more female physicians should be appointed, whose duty, under the control of the Superintendent, shall be to have charge of the female insane patients, and we urge the Legislature to enact such laws as shall make the reform obligatory.

Dr. Schultz opposed the criticisms that superintendents have to oversee, personally, every detail of the management of hospitals for the insane, any more than a captain of a ship has to attend, personally, to the shovelling of coal into the furnaces of a steamship; and defined the real relation of superintendents to their inferior officers and to the trustees.

Dr. Jackson, Dr. McKennan and Dr. Bishop spoke to the motion.

Dr. Traill Green repudiated the idea that the Committee knows nothing of the subject.

Dr. Ayers read a paper prepared by himself in regard to the subject and which was not adopted as a report by the Committee because the attendance of the Committee did not justify them in offering a formal report. His statement recommended the appointment of women physicians for the female patients, the appointment of a consulting medical staff and the appointment of a purser to aid in managing the affairs of hospitals for the insane.

Dr. Curwen spoke against the resolution and defended hospital superintendents against the charges brought against them.

Dr. Gerhard also spoke.

Afternoon Session.

The Committee on Nominations reported nominees:

For President—Dr. A. Craig, Lancaster Co.
Vice-Presidents—Dr. T. H. Van Valzah, Mifflin; T. McKennan, Washington; W. S. Foster, Allegheny; S. D. Bell, Butler.
Treasurer—Geo. B. Dunmire, Philadelphia.
Permanent Secretary—W. B. Atkinson, Philadelphia.
Recording Secretary—Charles W. Dulles, Philadelphia.
Corresponding Secretary—Israel Cleaver, Berks.
Committee on Publication—Edward Jackson, Philadelphia; G. W. Guthrie, Lycoming; S. H. Gump, Bedford.
Censors—First District, J. W. Walk, Philadelphia.
Fourth District, A. M. Smith, Snyder.
Fifth District, John Montgomery, Franklin; I. C. Gable, York.
Sixth District, D. P. Miller, Huntingdon; H. M. Lichtz, Somerset.
Seventh District, J. S. Hackney, Fayette.
Ninth District, J. A. Ritchey, Venango; J. M. Cresswell, Clarion.
Tenth District, A. A. Woods, Erie.
For Judicial Council (as two years have passed since appointments were last made):
For 2 years, S. S. Schultz, Danville; J. H. Packard, Philadelphia; John Curwen, Warren.
For 3 years, A. M. Miller, Bird in Hand; W. T. Bishop, Harrisburg; Traill Green, Easton.

Delegates to American Medical Association—H. G. McCormick, Lycoming; S. Birdsall, Susquehanna; W. B. Lowman, Cambria; J. P. Connelly, Lycoming; G. G. Harmon, Huntingdon; J. Q. Robinson, Westmoreland; C. W. Coulter, Venango; M. M. Magoffin, Mercer; W. Ray Grayson, Washington; F. L. Marsh, Westmoreland; J. Y. Shearer, Berks; A. Harshberger, Mifflin; J. F. Summerville, Clarion; T. C. Rich, Lycoming; S. S. Good, Somerset; J. S. Hackney, Fayette; T. B. Hill, Greene; I. A. Armstrong, Armstrong; John B. Roberts, Philadelphia; W. B. Ulrich, Delaware; S. P. Bartleson, Delaware; D. K. Gotwald, York.

To International Medical Congress—J. L. A. Burrell, Lycoming; J. A. Ritchey, Venango; E. M. Corson, Montgomery; J. K. Weaver, Montgomery; A. M. Miller, Lancaster; J. K. Lineaweaver, Lancaster.

To State Society of New Jersey—E. V. Swing, Chester.

To State Society of Maryland—I. N. Snively, Franklin.

Time of meeting, the first Monday in June, 1891; the place, Reading, Pa.

On motion the report of the Nominating Committee was adopted, and the Berks

County Medical Society was authorized to appoint a Committee of Arrangements.

A telegram from the Pennsylvania Pharmaceutical Association was read by Dr. Atkinson, and thanks and congratulations were sent in return.

Dr. E. A. Wood moved to send congratulations to the Society of West Virginia, now in session.

Dr. E. A. Wood was nominated and elected to the Judicial Council to fill the vacancy caused by the resignation and removal to Ontario of Dr. J. R. Taylor, of Phillipsburg.

Dr. James Tyson read a paper on the

Management of Obstinate Dropsies,

recommending skimmed-milk diet for removal of dropsies, with spartein ¼ to ⅓ grain, t. d. and milk at regular intervals and in fixed doses.

Dr. Samuel Ayers, Pittsburgh, read a paper on

Trephining in Traumatic Insanity.

In it he described a number of cases in which he trephined and in which the results were very satisfactory; and he advocated the method as having very little danger and giving a good chance of improvement to the patient.

Dr. Murdoch described a case in which there was a remarkable recovery after loss of brain substance.

Dr. John B. Roberts read his

Address on Surgery,

in which he gave a careful account of the present view in regard to the relation of bacteria to practical surgery. He described the different forms of micro-organisms which influence surgery, and urged the absolute duty of surgeons to observe bacteriological cleanliness.

Dr. R. B. Mowry spoke upon the paper, and said it explained some of the difficulties presented in the discussion on the contagiousness of tuberculosis.

Dr. Traill Green read a paper on the

Chemistry of Cooking,

in which he spoke of the necessity of having correct knowledge in regard to the digestibility and nutritious properties of various articles of food; and described the chemical composition and mode of preparation of certain foods, animal and vegetable, and the effect of different forms of cooking.

Speaking of the frying-pan, he said that the grease with which it fills food makes this much harder to digest. He also objected to the use of lard instead of butter in cooking, and described the processes of raising dough and baking it.

Dr. G. W. Allyn spoke about beef teas and beef extracts, and said that most of them contained, Liebig's especially, only the stimulating part and not the nutritious part of the meat.

Dr. E. A. Wood paid a warm tribute to Dr. Traill Green for bringing a paper before the Society. He spoke of the fault of overdoing cooking and preferring the pleasing of the palate to the needs of the system; and cooking food so soft as to require no chewing. The effect of the use of so much soft food for children and liquid food is to produce narrow and weak jaws which will not hold thirty-two teeth, and poor teeth. He earnestly advocated the use of harder food to exercise and develop the jaws and teeth. He said "If I were dictator of this country, I would undertake to raise a race of men and women who would put to shame the ancient Greeks, who were like gods and goddesses; instead of such as in early life have their mouths filled with the products of the dentist's laboratory."

Dr. A. B. Brumbaugh recommended addition of salt to milk, and to boil eggs hard and grate them, adding a little milk.

Dr. J. H. Packard made some remarks on the

Value of Primary Anæsthesia from Ether.

Dr. John Aulde read a paper on

Arsenite of Copper,

in which he reported the results of his investigation of the therapeutic value of this drug. He began to use it two years ago. The mode of administration is in powder or in tablet triturates. It is useful in cholera morbus, colicky pains, cholera infantum, diarrhœa and dysentery, anemia, chlorosis. The latter was recommended by Dr. L. G. Broughton, of Reidsville, N. C. He gave an account of the findings of reports of 520 cases treated by correspondents.

Dr. Atkinson read the Report of the

Committee on Clinical Research,

which showed that the members of the Society have made an insufficient response to their request for co-operative study. Dr. Roberts resigned from the Committee.

Third Day, Thursday, June 12.

Morning Session.

Dr. Frances N. Baker, Delaware Co., made the

Address in Obstetrics.

Dr. J. Milton Duff, Pittsburgh, read a paper on

Rational Midwifery.

He protested against the methods of those ill-prepared and unfit to practice obstetrics. He advocated at least one preliminary examination—before full term—in every case of pregnancy. To show the great difference of methods on the part of different obstetricians, he cited the statistics of a number of men, some of whom in a limited number of cases had a relatively large proportion of craniotomies, still-births, adherent placenta, etc. He objected to the too free use of ergot and the forceps, and said that antisepsis without cleanliness is void.

He said the history of abortion is the history of civilization and that as the laws against abortion have multiplied so have the cases in which it was practiced; and not long ago a certain obstetrician advocated the prostitution of his art by practicing it scientifically. He said embryotomy and cephalotripsy, with a living child, ought to be abandoned for laparotomy. But laparotomy must not be deferred until after a woman is worn out and her soft parts lacerated and bruised by vain efforts to remove a fetus by the natural passages.

Dr. Geo. B. Dunmire, Philadelphia, read a paper on

The Use of Ergot in Labor,

in which he objected to the indiscriminate use of ergot and cited his own observations and the results of his examination of the Reports of the Board of Health of Philadelphia. These confirm his opinion that ergot is a remedy to be used with the exercise of the greatest discretion. He advocated no use of ergot before the third stage of labor, and the establishment of schools for the instruction of midwives.

Dr. Mordecai Price read a paper on

What Should be Required of an Abdominal Surgeon,

endorsing Dr. Duff's views as to preparation for the work of an obstetrician, and urged the importance of careful study and observation under the best masters before a man shall undertake to do abdominal surgery.

Dr. Ulrich called attention to the abuse of privilege in members carrying off papers from the room instead of delivering them to the Secretaries, and said he saw in a Pittsburgh newspaper this morning a paper (published in full apparently) read before this Society yesterday, with a picture of the author.

Dr. H. H. Whitcomb, Norristown, asked the opinion of the Society as to the use of the oil of cinnamon. He said a practitioner in Norristown said he was in the habit of giving five drops of extract of ergot and one drop of oil of cinnamon before labor and he never had post-partum hemorrhage.

Dr. Longaker said he had no use for ergot whatever, and endorsed Dr. Dunmire's designation of it as "the deadly spur."

Dr. E. E. Montgomery recommended the use of bromide of ethyl as an anæsthetic in labor. It is rapid in action, safe, and its effects pass off soon, leaving no unpleasant results. He once advocated the use of electricity in the early stages of extra-uterine pregnancy; but now he has changed his mind and gave good reason for this change, from cases coming under his own observation or occurring in the practice of others. He endorsed Dr. Duff's reprobation of embryotomy when the fetus is living, and said the obstetrician should be the guardian of the helpless child. The mortality of Cæsarean section he attributed to delay in practicing it until after various other measures for delivery had been tried.

Dr. Traill Green spoke of the practice of abortion and characterized it as murder. There is a man in Easton, who is a Christian, who believes that "a doctor ought always to help young ladies out in this trouble." Dr. Green tells people that it is murder and that people who commit murder go to hell. People say it is diabolical, but he had never heard of the devil performing this operation. He described a case of conviction of abortion and the attempts to have the abortionist pardoned and his efforts to prevent such an outrage. He said: "I devote myself henceforth to catching these rascals."

Dr. C. R. Early spoke of a case of abortion where conviction was followed by a prompt pardon.

Dr. Mordecai Price suggested that physicians be careful not to conclude that a criminal abortion has been performed by a man.

Dr. Buchanan endorsed Dr. Price as to

abdominal surgery in general; but thought he went too far in saying that no one should practice it who has not all the qualifications he described; and that this restriction would have retarded the advance of abdominal surgery. Men, good surgeons in general and well prepared in anatomical knowledge and acquaintance with the literature of the subject, are justified in operating themselves, and need not send their patients away or let them die unrelieved.

Dr. Edward Jackson, Philadelphia, read a paper on

Suppurating Ulcer of the Cornea,

for which he recommended thorough scraping the cornea with the spud.

Dr. G. H. Cline, Jersey Shore, described a form of glasses.

Dr. Dulles introduced the following resolution:

Resolved, That the President appoint a committee of three members who shall secure the incorporation of the Medical Society of the State of Pennsylvania, naming as trustees for the first year the present members of the Judicial Council.

This was adopted by a unanimous vote.

Dr. Wm. C. Bane, Pittsburgh, read an account of a case of

Sarcoma of the Choroid.

Afternoon Session.

The report of the Committee to Revise the Constitution was presented and was ordered to be printed.

Dr. Alice Bennett, Norristown, read the

Address in Mental Disorder,

in which a number of cases of insanity of various forms were described and explained. She spoke of the possible similarity of nature between chorea and convulsions and dwelt at some length upon the relation of diseases of the kidney to insanity.

Dr. E. A. Wood spoke of a form of insanity due, he thinks, to disease of the liver, which is mistaken for disease of the kidneys, and in which what is thought to be albumin is really a glycogen.

Dr. G. M. Shilto, Allegheny, read a paper on

The Application of Dry Heat by Steam,

and described and showed an apparatus which he has devised for this purpose.

Dr. A. B. Brumbaugh, Huntingdon, read a paper on

La Grippe or Epidemic Influenza,

in which he described his own experience in the recent epidemic. He found the disease characterized by disturbances of the gastric rather than of the respiratory tract. His treatment was principally directed to the latter, and his results were very satisfactory. He did not regard the disease as contagious.

Report of the Committee to Confer with the State Committee on Lunacy.

Dr. Mordecai Price moved that the Committee on Publication be authorized to omit from the volume of Transactions the Address in Laryngology, by Dr. Wm. H. Daly, which was published in a daily paper of Pittsburgh this morning, together with his portrait.

After some discussion, a motion by Dr. Shaw to lay the original motion on the table was lost, on a division, ayes 19, noes 25. The original motion was then carried, on a division, ayes 33, noes 17.

Fourth Day, Friday, June 13.

The President appointed to deliver the addresses at next meeting: In Medicine, Dr. J. Chris. Lange, Pittsburgh; in Surgery, Dr. O. H. Allis, Philadelphia; in Obstetrics, Dr. John Milton Duff, Pittsburgh; in Hygiene, Dr. A. B. Brumbaugh, Huntingdon; in Mental Disorders, Dr. Samuel Ayers, Pittsburgh; in Ophthalmology, Dr. J. A. Lippincott, Pittsburgh.

Dr. Murdoch made a speech on retiring, and introduced the President-elect, Dr. Alex. Craig, of Columbia. Dr. Craig assumed his duties and thanked the Society for the honor conferred upon him.

On motion of Dr. Bishop the thanks of the Society were tendered to President Murdoch, to the Allegheny County Society, and to the citizens and ladies of Pittsburgh.

Dr. Murdoch moved that the Publication Committee be instructed to have a memorial of Dr. Henry H. Smith in the next volume of Transactions with a steel plate or engraving. The motion was carried.

The Society adjourned to meet at Reading on the first Tuesday of June, 1891.

PERISCOPE.

Fracture of the Anterior Superior Spinous Process of the Ilium from Muscular Action.

In the *Boston Medical and Surgical Journal*, March 6, 1890, Dr. N. Nickerson, of Meriden, Conn., reports a curious case of a very rare form of fracture.

A boy, aged seventeen, while running a foot-race of one hundred yards, was suddenly brought to a stop by feeling something give way in his hip, with a sensation of bones grating together. He found that he could not take another step, and was carried home where Dr. Nickerson saw him within an hour after the accident. On examination he found distinct crepitus, with motion of fragment, on pressure upon the anterior superior spinous process which elicited considerable evidence of pain.

The leg was placed in a flexed position, resting on a fracture apparatus, but without bandage or other appliance to keep the parts in apposition, and the point of injury kept bathed in an evaporating lotion for several days. At the end of two weeks the boy began to walk cautiously by the aid of crutches, and in three weeks dispensed with them altogether, though using care in going up and down stairs or over rough ground.

The diagnosis in this case was confirmed by Drs. E. T. Bradstreet and E. W. Smith, who saw the case with Dr. Nickerson.

The following extracts may be of value to those physicians who have not access to large medical libraries, and contain all that Dr. Nickerson has been able to find bearing on this fracture.

In the New York *Medical Journal*, Volume XII, page 184, and the Canada *Medical Journal*, Volume VII, page 97, Drs. S. Joy and J. W. McWhinnie report this case: Augustus S., age seventeen, a medical student, was engaged in a foot-race where a certain distance had to be run, then to turn and run back. In the exertion of turning he felt something snap in his right hip, and walked a few steps and fell. On examination, distinct motion and crepitus could be felt, by the pressure over the process, also by placing the thumb over the origin of the sartorius and rotating the thigh.

The patient was placed in bed, with the thigh flexed and the shoulder raised, a bandage being applied to aid in steadying the fracture. This position and adduction of the leg were maintained by bands attached to the posts of the bed. In two weeks the patient made a good recovery without displacement. In commenting on this case, the doctors make the following observations: "In looking up the literature of fractures of the anterior superior spinous process of the ilium, we read of their occurrence from direct violence, but not one case is recorded as having taken place from muscular action."

In the *British Medical Journal*, 1872, page 549, this case is reported by Dr. George J. Seeley: A young man, age seventeen, of good muscular development, whilst running vigorously in a foot-ball match, was suddenly brought to a standstill by a snap in his side, followed by a feeling of "coming in two." Being quite unable to take another step he was carried to the house, and, on my examining him about an hour afterwards, I found considerable tenderness along the upper head of the rectus femoris, and a piece of bone, as large as the top of a finger, detached from the ilium; crepitation was very distinct.

In the same journal for 1872, page 513, Dr. W. E. Hyde reports another case, as follows: A young man eighteen years of age, whilst running over some uneven ground suddenly felt as if a stone had been thrown at him, striking him on the hip, and then felt that he could not move again. He was carried home, and upon my arrival an hour afterwards I found that he was unable to draw his leg forwards, and upon examination I found one head of the rectus femoris torn from its attachment to the ilium with a piece of the bone, about the size of a half damson, perfectly movable, so much so that distinct crepitus could be felt by moving the surfaces of the fractured parts together. I flexed the thigh and applied a pad with a figure-of-eight bandage round the pelvis and thigh. At the end of two weeks union had taken place, with formation of callus, and in another week he could walk about with some difficulty.

Dr. Hamilton, in his classical *Treatise on Fractures*, etc., gives this as the only case coming under his observation. William Alexander, aged seventy, on the 5th of September, 1869, after riding in a railroad car about half an hour, arose to leave his seat when he felt "something wrong" in his right groin, and found himself unable to walk without great pain. He was admitted to Bellevue Hospital on the same day, and

I found a fracture involving about three inches of the ilium, including the anterior superior spinous process. It was inclined to fall outwards, but was easily replaced, with a distinct crepitus.

The following remarks are taken from the *Treatise on Fractures*, by Lewis A. Stimson, M. D., as the last word on the subject: "Dr. Hamilton has reported a case of fracture of the anterior superior spinous process of the ilium by muscular action, and the same agency appears not improbable in other fractures of the same part. Riedinger asserts the same cause in many fractures of the crest. Considering the strength of the muscles attached to the ilium, and the occasional correspondence of the fragments to the insertion of the muscles, the theory does not seem unreasonable."

Albuminuria.

In a digest of walking cases of albuminuria, by Dr. James F. Goodhart, in the *Medical Press and Circular*, Feb. 12, 1890, the author stated that his observations were derived from an examination of 272 cases of albuminuria which had come under his notice during the last ten years. Dr. Goodhart called special attention to a form of congestive albuminuria in which the patient complains of a certain amount of ill-health, whilst on inquiry it is found that he eats and drinks too much, takes no exercise and probably has gouty antecedents. In such cases the urine is of high specific gravity, and contains only a small amount of albumin. The treatment consists in the periodical administration of a purge, and in making the patient live according to the ordinary laws of health. When these can be followed the albumin soon disappears from the urine. These cases are clearly not due to nephritis, and it is in describing the pathology of such an affection that the term "congestive" is of service. The temporary presence of albumin in the urine can also be sometimes explained by the fact that in females the urine has become mixed with leucorrhœal discharge, whilst in the male the seminal and prostatic secretions may produce a similar result.

Dr. Goodhart also maintained that intermittent albuminuria often occurs in highly neurotic persons, and to prove this point he quoted the details of several cases which had come under his notice. In such instances the occurrence of albuminuria may, perhaps, be explained by assuming that there has been oxaluria or some temporary disturbance of the digestive functions. In other cases where albumin appears in the urine after scarlatina, and is therefore presumably due to nephritis, the patient remains in good health. In such instances Dr. Goodhart thinks that the phenomenon is to be explained by supposing that each organ in most individuals has a margin of working power which can be temporarily encroached upon without bad result. Acute nephritis may run its course without any dropsy, and it is then very likely to be overlooked unless an examination be made of the urine. Dr. Goodhart related two such cases occurring in children who were first cousins to each other; in both instances the skin was remarkably dry and shrivelled. In one of these cases a *post-mortem* examination was obtained, when it was found that the kidneys were small, their capsules adherent, their surfaces pale and speckled, the cortex much diminished in amount, whilst microscopically the malpighian tufts were seen to be undergoing hyaline degeneration. On the other hand Dr. Goodhart has seen cases of chronic parenchymatous nephritis associated with dropsy lasting for some months, the patients recovering completely even when their cases had appeared almost hopeless. Albuminuria may alternate with the elimination of uric acid, or of sugar of the kidneys. In such cases it seems as if there was a sudden unlocking of abnormal metabolic process, but it is, perhaps, more correct to say that there are oscillations in the pathological processes and formations just as there are in Nature, or in the normal body heat. In cases of albuminuria Dr. Goodhart lays down the following as a good rule of practice: "If a case presents itself for examination, and albumin is found in the urine, it is a case for further examination; if it be in a young person, and the examination be conducted upon the urine of the early morning, the albumin will probably have disappeared at the next examination or within a very short time, and it is a condition of no importance. If the albumin is in any quantity, and its presence is persistent, or re-appearance frequent, it must be regarded, to use Dr. Gairdner's apt expression, as a danger signal to be watched, and, personally, I believe that some of the cases at any rate are due to patches of inflammation irregularly distributed in the kidneys."

Dr. Goodhart believes nitric acid to be the best form of test for albumin occurring in the urine, he has of late years discarded picric acid on account of the frequency with which this reagent causes a difficulty when quinine has been administered. Picric acid, however, undoubtedly makes the greatest show when there is only a trace of albumin.

Pulque in Hydrophobia.

In a Peruvian journal, *La Crónica Médica*, Dr. Pablo Patron relates a case of a boy who had been bitten by a rabid dog. Although the wounds were antiseptically treated, the boy began to show signs of hydrophobia. One day he escaped into the fields, where he gathered leaves of the American aloe (*Agave americana*) and sucked them. Subsequently the boy recovered from the disease and the agave gets credit for the cure. *Agave americana* not being readily obtainable in this country, any one under the painful necessity of requiring treatment of this kind might try pulque, which is the juice of the *Agave americana* slightly fermented. Pulque is readily obtainable.—*Chemist and Druggist*, April 26, 1890.

Gum Cahori.

Gum cahori is the resin of a tree called dammara or agahi, belonging to the coniferæ, and indigenous to New Zealand and New Caledonia. The gum is extensively employed in the manufacture of varnish. Two forms are recognized: the fossil and the recent. Gum cahori is soluble in alcohol at a temperature of 90° C., and also soluble in ether. By distillation an essence is obtained which has an odor of turpentine. A solution of the resin in its essence may be employed in the preparation of histological specimens in place of Canada balsam.

M. Fornet, in the *Mecredi Médical*, April 9, 1890, states that the alcoholic solution of the gum may be used advantageously as a substitute for collodion as a protective dressing for superficial wounds. It is of a syrupy consistency and has an agreeable odor. It may also be used in place of collodion in cutaneous affections. Finally, when given internally it has been observed to act beneficially in cases of catarrh of the bladder.

Eczema of the Face in Infants.

Besnier, in the *Annal. de Obst. Gin., y Ped.*, February, 1889, says that eczema of the head presents three forms during infancy. The first occurs in lymphatic and scrofulo-tuberculous subjects, its principal characteristics being moderate pruritus, infarctions of the lymphatic ganglia of the nose and mouth, which may result in tuberculous lesions with abundant secretion. Often there is also phlyctenular keratitis. The second form occurs during dentition. In this form the itching is intense, the head being covered with the eruption. The gums may also be sensitive, and salivation be decided. To soothe the irritation of the gums frequent applications of the following formulæ are recommended:

℞ Glycerini
Aq. destil. . . . . āā 80 parts
Potass. brom. . . . . 7 "
Cocain. mur. . . . . 7 "

If the sleep is disturbed, give four teaspoonfuls, with intervals of an hour each, of the following:

℞ Potass. brom. . . . . 7 parts
Mucil. acaciæ . . . . . 400 "

Topically the following may be used:

℞ Zinci oxidi . . . . . 24 parts
Vaselini . . . . . 68 "

In the third variety there is no itching. The trouble is principally in the skin of the scalp, and is characterized by abundant desquamation of the skin. It may extend to the body and limbs. The hair should be cut off, and the skin of the scalp washed with soap and water, to which a little milk may be added. Then an application may be made of the following:

℞ Resorcin . . . . . 7 parts
Zinci oxid. . . . . 60 "
Vaselini . . . . . 900 "

Instead of the resorcin three or fou grammes of sulphur, or twelve to twenty-four grammes of ichthyol may be used.

In the scrofulo-tuberculous form the affected portions should be bathed twice daily with a mild solution of Van Swieten's liquor, after which an ointment should be applied containing one part of calomel and thirty of a suitable excipient.—*Archives of Pediatrics*, April, 1890.

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MISMANAGEMENT OF THE PHYSICIANS' REGISTRATION ACT.

A recent investigation by the MEDICAL AND SURGICAL REPORTER of the registration of physicians as conducted in the Prothonotary's office in Philadelphia, has demonstrated several things which deserve some comment. In the first place, the law governing the registration of physicians is so defective in its language that it is quite capable of interpretations which would seem to make legal the registration of persons having no claim whatever to be considered physicians.

The intention of the law, in permitting the registration of persons who had been in practice for ten years when it was passed, seems clear enough, but its wording is so stupid that it is held by the Prothonotary that persons who assert that they were in practice in Pennsylvania from 1871 to 1881, can still be registered as physicians under the "Ten Years' Practice Act," passed in 1881. In doing this the Prothonotary makes no account of the intervening years in which such persons were out of practice or were practicing illegally.

Again, the law provides that any person representing that he has lost his diploma by fire or otherwise may register as a physician, upon making an affidavit to that effect, stating the "names of the professors whose lectures he or she attended and the branches of study upon which each professor lectured. Not a word is said requiring that the studies shall have been in a medical school of any sort; and, so far as we can see, one might register who could affirm that he had studied in a high school or what is called a commercial college.

Again, it is held by the Prothonotary that any person holding a diploma from the "Philadelphia University of Medicine and Surgery," the "American Eclectic College" or any of the other fraudulent institutions which ever existed in Pennsylvania, though now broken up and though their promoters are in prison may still register as a physician, provided that his fraudulent diploma is dated earlier than the time when the courts declared these diploma mills to be illegal or their charters were forfeited.

The records at the Prothonotary's office show that these defects of the law have been taken great advantage of. It is curious and suggestive to note that physicians who have been convicted of malpractice, misdemeanor and abortion within the past ten years have almost, without exception, been graduates of Paine's or Buchanan's fraudulent and disbanded schools, or else have registered under the "Ten Year Act." It is equally noteworthy that these names are still on the register and their license to practice has not been forfeited.

In regard to the administration of the registration law by the Prothonotary, it is found that he has turned the whole over

very largely to his clerk and that the facilities afforded the latter for keeping the registration papers in order are very poor. This may partly account for the fact that the affidavits, certificates and copies of diplomas are not properly filed or preserved, but are in confusion and disorder; rendering a search for any one paper very difficult. The papers that have been numbered are not filed in proper numerical order, while a large number of recent papers are not numbered at all. Some of the papers cannot be found at all, and others, which could not be found by our representative, after a most careful search, were subsequently discovered by the clerk.

In the registration books, a large number of the affidavits have not been signed by the physicians, and in many other cases the clerk has written their names to the affidavits *himself!* He gives, as an excuse for this remarkable performance, the statement that the physicians got away from the office before he could get their signatures, or that he must have been very busy at these times. When it is considered that these signatures are appended to sworn statements made by the registering physicians, the significance of what we have discovered in regard to them will be apparent.

In investigating the facts in connection with certain individuals about whom the profession would like to know something, we have found what follows.

The affidavit of Henry W. Lobb, an advertising physician (practicing under the ten years' practice clause), could not be found, although the register contains the statement that one is on file; the only paper referring to him is a letter from Dr. "Bartholomew," stating that Dr. Lobb had studied medicine under him for three years. A. J. Kimball is registered as a graduate of the Bennett Eclectic College, of Chicago. A copy of his diploma is filed but is not endorsed by any Pennsylvania medical school. Kate Koenig and J. A. Heintzelman are registered under the "Ten Years' Act," but there is no record in regard to when they practiced and their affidavits could not be found. Harriet Hinkle and Sarah A. Spare are registered under the "Ten Years' Act" as "Cancer Specialists." Eliz. Wiegand is registered under the "Ten Years' Act," but she has signed the register *E. Wild;* her affidavit cannot be found. Eliza Morong, who is registered under the "Ten Years' Act," apparently could not write, for she made her "mark" both to the register and to the affidavit.

In all sixty-five persons who have no diplomas are registered as physicians.

That the cases alluded to represent only a small fraction of the questionable registrations in Philadelphia, we have no doubt; but the cases cited will suffice to show how imperfect is the registration law in this State, and how loosely it is administered in this city. It was supposed, when the Prothonotary appointed as his clerk a physician, that the latter would do whatever he legally could to prevent the weak features of the law from working injury to the community. But it seems that to the natural defects of the law have been added carelessness in the Prothonotary's office—if not worse. The individual who is primarily responsible to the people for this is the Prothonotary, and it may be necessary for the REPORTER and the Philadelphia County Medical Society—which also is engaged in investigating the subject—to call attention to what appear to be the reasons why the law has been administered as it has been in certain cases.

For the present we content ourselves with calling attention to the matter, so that our brethren throughout the State may understand that in this city something is being done to correct a state of affairs which we know exists in other parts of the Commonwealth as well as here, and with the hope that what we have done may encourage others to investigate and report the defects of execution of the registration law in their own counties.

SURGICAL TREATMENT OF ABSCESS OF THE LIVER.

A casual glance over the most prominent text-books of surgery is sufficient to show that the treatment of hepatic abscess is but briefly dealt with. Aspiration, tapping by trocar, and free incision are recommended, as the needs of the case may indicate. The treatment by laparotomy, either by one or by two stages, as endorsed by Lawson Tait, Pye Smith and Taylor, has also found favor. But at best recovery after any of these methods is slow, and fatal issues are not infrequent. It is noteworthy that the after-treatment of abscess of the liver is but sparingly dealt with in the majority of the books, and a great deal of the surgeon's knowledge is taken for granted.

Mr. Vaughan Harley, in an address before the British Medical Association, reported in the *Medical Press and Circular*, April 30, 1890, described a rapid mode of cure for abscess of the liver, which both in his hands, and in the hands of others has yielded most gratifying results. Before describing Mr. Harley's operative procedure, in order that the *rationale* of the process may be readily understood by those who have given no special attention to hepatic diseases, the following particulars are subjoined, from Mr. Harley's paper.

1. Inflammations of the liver end much more frequently in purulent formations, in hot than in cold countries. 2. Men are far more liable than women to liver suppurations. 3. Although an abscess of the liver may occur at any period of life, it is much more common between the ages of twenty and fifty years than at any other. 4. Suppurations of the hepatic tissues are most frequently met with in strumous subjects; and the most unsatisfactory cases of all to treat are those in which a syphilitic taint is superadded to a constitutional struma. 5. The most noted predisposing causes to liver abscess are struma and alcohol even when alcohol is indulged in within what is usually regarded as the limits of moderation. 6. The commonest of all the exciting causes is a sudden chill. 7. All abscesses of the liver tend to evacuate themselves by burrowing their way to the surface of the organ, and seeking an outlet for their contents either directly through the abdominal walls, or indirectly through the pulmonary or digestive systems. 8. It is futile to evacuate a liver abscess either by knife or trocar so long as a free opening is not left to give escape to the subsequently formed pus. 9. When an accumulation of pus has taken place in the liver it not only tends to do serious mischief by causing disintegration of the hepatic tissues, but also, from its becoming putrid, to kill the patient by blood-poisoning. This likewise occasionally happens when hydatids of the liver suppurate. 10. Cancerous and tuberculous deposits in the liver, by disintegration, sometimes lead to the formation of purulent formations. 11. As soon as the existence of purulent matter in the liver is detected it should be evacuated, and the more promptly it is done, the better will be the patient's chances of recovery.

The presence of pus being suspected, its exact situation should be searched for in the following manner. A fine exploring trocar eight inches long is to be passed into the liver obliquely from right to left, or *vice versa*, according to the site the abscess is thought to occupy. Then the instrument should be slowly withdrawn so as to allow sufficient time for a drop of pus to appear at its orifice. If pus be found its situation and depth in the organ should be carefully noted. If blood instead of pus flows, the bleeding ought to be encouraged. For, in cases of suspected hepatic abscess there is always more or less congestion, and marked benefit is likely to arise from a free hepatic phlebotomy.

The presence of pus having been substantiated, before withdrawing the exploring canula as much as possible of the purulent matter should be allowed to flow from it. Immediately on its ceasing to flow through the narrow tube, the surgeon should intro-

duce, in exactly the same direction and to precisely the same depth, one of the diameter of a No. 8 or No. 10 catheter English scale, and through it empty the abscess completely by means of an aspirator. When empty the cavity should be washed out with tepid water containing ten grains of boric acid to the fluid ounce, and the washing should be continued until the liquid returns clear and odorless. Then as large a silk elastic catheter as will pass through the canula into the abscess cavity should be inserted, and on withdrawing the canula the extruding end of the catheter should be cut off to within one and a half inches of the opening in the abdominal wall, and securely fastened there. This done, the whole should be covered with a hot soft linseed poultice.

The abscess cavity should be washed out with boric acid solution night and morning, and poultices should be constantly applied until the purulent discharge almost entirely ceases. If, however, as occasionally happens, the cavity refills, another opening should be made at a short distance from the first, and a second drainage-tube should be introduced. This counter-opening, by facilitating the washing-out process, greatly hastens the cure.

The advantages of this mode of treatment are well illustrated by the report of two most unfavorable cases, in which it was employed with complete and speedy success. The first case was that of a patient who, before the operation, nearly died with blood-poisoning, due to absorption into the circulation of the poisonous products of putrid pus. This patient was exceedingly weak, both in body and in mind. The liver dulness extended from the nipple to the umbilicus. At the time of the operation his pulse was 108, and his temperature 102° F. Sixteen fluid ounces of pus were evacuated, and the prescribed treatment was rigidly adhered to. The next day the pulse was 99 and the temperature 100°; and twelve days after the operation the patient was able to return home. The second case was one of multiple abscess occurring in the greatly enlarged liver of a strumous patient. The liver dulness extended from the nipple to two inches below the umbilicus. The day of the operation the patient's temperature was 103° F., and his pulse 120. Three days after the first abscess had been evacuated, a second one was discovered and treated in the same way. Recovery was rapid, and in three weeks all discharge from the wound had ceased.

The advantages of treating liver abscesses in the manner described may be briefly summed up in the following sentences. First, by the employment of boric acid we have not only the assistance of a thoroughly safe antiseptic agent, but the great advantage which accrues from the use of one free from the objection of coagulating the albuminoids in the pus, and thereby inducing a fouling of the instruments, such as is unfortunately the case with carbolic acid and most other antiseptic preparations. Second, the daily washing out of the abscess cavity with boric acid solution not only expedites the healing process, by keeping it clean, but has the further advantage of rendering it quite unnecessary to take any precautions against the intrusion of air into the cavity, no matter how large it is. Third, the washing out of the cavity with boric solution, from its enabling us to get rid of all the purulent matter, thick as well as thin, does away entirely with the necessity of making a large opening either through the abdominal walls or into the liver tissues with a knife or other instrument—a point of no slight importance, seeing that it is a well-recognized surgical axiom that the smaller the breach of continuity in any animal tissue, no matter whether it has been made accidentally or intentionally, the quicker proportionally is the healing process.

Mr. Hawley's method has also another point of value, namely, its simplicity. The procedure described is one which is easily understood and as easily carried out; and, should it prove as successful in others' hands as it has in those of Mr. Hawley and his

colleagues it will surely throw additional light and hope on the treatment of hepatic abscess.

AN ALLEGED ABORTIONIST.

The readers of this journal will be interested to know that we have followed up the case of Dr. Fackenthal, of Easton, whose methods were exposed in the REPORTER, May 31, and that in consequence of testimony furnished to the grand jury of that city a true bill has been found against him, and he has been placed under bail for trial. The date of his trial is set for September, and we shall inform our readers of its result.

BOOK REVIEWS.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the REPORTER.]

THE NEUROSES OF THE GENITO-URINARY SYSTEM IN THE MALE, WITH STERILITY AND IMPOTENCE. By R. ULTZMANN, Professor of Genito-Urinary Diseases in the University of Vienna. Translated by Gardner W. Allen, M. D., Surgeon in the Genito-Urinary Department, Boston Dispensary. Small 8vo, pp. 160. Philadelphia: F. A. Davis, 1889. Price, $1.00.

We are glad to welcome this translation of Ultzmann's two monographs, "Ueber die Neuropathien (Neurosen) des männlichen Harn- und Geschlechtsapparates," and "Ueber Potentia generandi und Potentia coëundi," especially as we understand that it has been made with the author's permission. After speaking of the urine and the changes produced in it by nervous influences, Ultzmann divides the neuroses of the urinary and sexual organs into three groups, according as they affect sensation, motion and secretion. Under neuroses of sensation are included hyperæsthesia of the urethra, the testicle, and the spermatic cord, and anæsthesia of these organs. *Impotentia coeundi* he defines as the impossibility of consummating the normal act of coition. The explanation of this condition, he says, is to be sought either in an organic change, a malformation, a defect in the penis, or, the penis being healthy and normally formed, in the inability to have a lasting and powerful erection. In the first case we have to do with an organic, in the second with a nervous or psychical impotence. The prognosis in the latter, he says, is usually favorable. Comforting advice and the assurance of complete cure should be given, but local treatment is declared to be the most effectual. Ultzmann prefers to use weak constant electrical currents in the following manner: The copper pole is placed over the lumbar vertebræ, and with the zinc pole the perineum, spermatic cords and penis are successively stroked. Duration of daily sitting two to three minutes; duration of treatment, six to ten weeks. In obstinate cases he employs the Faradic current and inserts a metallic staff into the rectum and applies the other pole successively over the bulb of the urethra, and right and left over the ascending rami of the pubes.

The motor neuroses of the urinary system include the spasmodic and paretic conditions of the bladder, while those of the sexual system include pollutions (nocturnal emissions) and spermatorrhœa. The author explains the distinction between these terms: Pollution is a copious evacuation of semen which takes place during sleep, generally at night, with voluptuous sensations and erect penis. Spermatorrhœa is a slight, dribbling and sometimes a continual flow of semen, without erection of the penis and without especially pleasurable sensation. Both forms may exist at times in the same patient. In the treatment of spermatorrhœa the author agrees in essential points with Gross in employing, in appropriate cases, bromide of potash, large metallic sounds, nitrate of silver injections to the prostatic portion of the urethra, and electrical stimulation.

The secreting neuroses have to do with the urine, the semen, and the secretion of the prostate. They are practically inseparable from the first two.

In the second monograph, on Sterility and Impotence, Ultzmann declares that ability on the part of man to generate depends solely upon the procreative power of the semen, while ability to copulate is often found unimpaired in cases in which the semen is absolutely sterile. The pathological changes in the semen are described as aspermia (absence of semen); polyspermia; and oligospermia (small amount of semen). The various abnormalities in color are also described. Azoöspermia is the name given to complete absence of spermatozoa.

The treatment of male sterility, the author says, is rarely accompanied with favorable results; it consists essentially in what is appropriate for spermatorrhœa.

The author is to be congratulated on having written in a scientific spirit upon a class of disorders which requires rare tact and a great amount of skill to manage successfully. We heartily recommend the book, and are especially glad that an excellent translation has made it accessible to a large class of readers.

NOTES AND COMMENTS.

Ouabain in Whooping-Cough.

Ouabaïn is an alkaloid with the formula $C_{30}H_{46}O_{12}$, and is obtained by crystallization from a watery extract of the roots of the ouabaïo, a plant nearly related to the *Carissa schimperi*. The juice of the ouabaïo plant is used as an arrow poison by the Somalis in East Africa.

Ouabaïn, its active principle, occurs in the form of rectangular crystals, which are white, transparent, colorless, and to a very slight degree bitter to the taste. It dissolves with difficulty in cold water, but much more readily in hot; it is altogether insoluble in chloroform or ether, and but to a slight extent in absolute alcohol. Its best solvent appears to be partly concentrated alcohol, and this solubility is increased by heat.

Professor Gley and M. Arnaud, both of

Paris, first studied the physiological effects of ouabaïn in frogs, rabbits and dogs, and they found that in a frog $\frac{1}{260}$ grain caused death by arresting the heart's action. In a dog, $\frac{1}{975}$ grain produced marked slowing of the respirations, without much cardiac disturbance; $\frac{1}{260}$ grain first stimulated, and then slowed respiration, until it ceased completely. Subcutaneously the drug was found to act much more powerfully than when given by the stomach; and $\frac{1}{65}$ grain, introduced into the blood through a scratch or otherwise, is said to be fatal to man.

Dr. Percy Wilde was the first to suggest the use of ouabaïo in asthma and whooping-cough, but it remained for Mr. William Gemmell to first test its value in this disease. His observations, which are reported in the *British Medical Journal*, April 26, 1890, are briefly as follows:

In this instance its use has been limited to cases of whooping-cough. Very small doses were employed at the outset; $\frac{1}{5200}$ grain (or half the lethal dose for a frog) was considered sufficient to start with, but this was quickly found to have little or no effect in controlling the disease. Accordingly the strength of the dose was increased from time to time until it was found that the standard dose for, say a child of 5 years, was $\frac{1}{1000}$ grain in solution every three hours.

Forty-nine cases of whooping-cough have been treated with ouabaïn. Of these, 25 have been dismissed well, 4 died, and the remainder are still under observation. Of the 4 fatal cases, 1 died from diphtheria, 1 from tubercular meningitis, 1 from acute capillary bronchitis, and the fourth from gradual and progressive emaciation. None of the fatal cases were under treatment with ouabaïn for a longer period than 10 days—one of them only for 4—and in all of them ouabaïn had been stopped at least a week before death took place. In none of the fatal cases were there any symptoms which might have been interpreted as indicative of ouabaïn poisoning. It is on the observations mentioned that the following general conclusions are based.

1. Ouabaïn is of marked benefit during all stages of whooping-cough, and, if carefully used, produces gratifying results. In the first stage it cuts short the attack; in the second, it reduces the violence and frequency of the cough, and diminishes the number of whoops, and in the third it hastens convalescence in a remarkable manner.

2. Ouabaïn is a drug the effect of which does not appear to be cumulative; its administration can be stopped suddenly without any ill effect beyond an exacerbation of the whooping-cough; it can be as suddenly resumed.

3. Ouabaïn should be given, at first at any rate, in doses not larger than $\frac{1}{1000}$ grain every three hours ($\frac{1}{125}$ grain daily).

4. For children under one year of age the dose should not exceed $\frac{1}{2000}$ grain every three hours.

5. In children of from six to twelve years of age, if the cough be very violent, and the whoops are numerous, $\frac{1}{500}$ grain may be given in each dose, but the action of the drug must be carefully watched.

6. Ouabaïn may be given alone, dissolved in water, or in combination with bromide of potassium, or chloral hydrate. The simplest way is to dissolve one grain of ouabaïn in distilled water, so that each minim of the solution shall be equal to $\frac{1}{1000}$ grain ouabaïn, as: ℞. Sol. ouabaïn, ♏ xlviii; syr. aurantii, f℥iv; aq. ad. f℥vi. M. Sig. A teaspoonful every three hours.

7. Under the administration of ouabaïn it is found that the temperature, pulse and respiration are, in uncomplicated cases, slightly below normal. When the drug is pushed the respiration becomes very slow; in one patient, aged four, it was often as low as sixteen per minute. It is from this side that danger is to be expected. An occasional irregularity of the pulse has been noted, and this always occurred in the evening.

8. Ouabaïn seems to promote the action of the skin. Within a few days—always less than seven, and usually three—of beginning treatment patients are noticed to be perspiring freely, and this is observed to continue so long as the drug is being given. The patient ceases to perspire so freely shortly after the drug is stopped.

9. The movement of the bowels is regular; the average number of motions daily is 1⅓. In no single instance was there any of that diarrhœa which is usually so troublesome a feature in whooping-cough.

10. The total amount of urine passed is slightly increased. The amount in each case of course varies with the age of the patient. The average daily amount over the whole 49 cases was 14½ ounces. The average age of each patient was 4 years 5 months.

It may be noted that in two of the cases under treatment sugar was undoubtedly

present in the urine on admission. This began to diminish in quantity, in one instance within three, and in the other within five days, after treatment was commenced; and in the first case on the eighteenth, and in the second on the nineteenth day of treatment the urine was noted as being free from the slightest trace of sugar. It remained so during the remainder of residence in hospital.

11. Professor Gley points out that four drops of a solution of 1 in 1,000 produce in a rabbit marked anæsthesia of the cornea, which anæsthesia lasts for about two hours. Mr. Gemmell failed to find this anæsthetic effect produced in any of his patients, although repeated experiments with a solution of the same strength have been made in nearly every case.

12. The appetite improves. This effect is striking, and has been noted in all the patients without exception.

13. The general physical condition improves considerably.

14. The sleep is sound.

Suffocation as a Cause of Sudden Death.

At the meeting of the New York Clinical Society, held Nov. 22, and reported in the *New York Medical Journal*, Feb. 22, 1890, Dr. R. Abbe narrated a personal experience in which he had undergone, to the point of insensibility, all the painful phenomena attending the accidental lodgment of a foreign body in the upper air-passages. He had also noticed that for a month afterwards his larynx was so sensitive and the muscles of the throat were so disturbed that the latter were apt to play him false and cause choking. He recollected a report of the case of a gentleman who, while talking, bit off a piece from an envelope. This little piece of paper, large enough to cover the rima glottidis, was drawn into his throat with his breath, lay like a valve upon his vocal cords and choked him to death.

Dr. W. Mendelson said that this question of suffocation as a cause of death had interested him a great deal. He thought that, in a certain number of cases, death resulted from inhibition of the heart by reflex action of the pneumogastric nerve. Any excessive excitation of the vagus might cause stoppage of the heart by inhibition. He thought this was the only way that these deaths could be explained. Evidences of suffocation were always found, because, though the heart had stopped, the centre of inspiration was still active and attempts at inspiration were made. The sudden and lightning-like rapidity with which these patients died, especially children, in whom the larynx was more sensitive, had led him to the conclusion he had given.

Dr. Curtis asked whether apoplexy might not be brought on by these suffocative attacks. Eighteen months ago an old woman had come under his observation with a rapidly developing cancer of the inferior maxilla. It was found impossible to keep her mouth open, and equally impossible to attempt extirpation of the growth. He had put her under ether with the idea of dividing some constricting bands by means of Paquelin's cautery, and, if possible, give some freedom of movement to the mouth. She took the ether well at first, and then suddenly stopped breathing. Under the circumstances it was impossible to get her tongue forward and so tracheotomy was performed immediately. Artificial respiration was resorted to, and, though breathing was restored, she never recovered consciousness and died during the night. Unfortunately, no autopsy was obtainable, but it was the speaker's opinion that she had suffered some form of cerebral hemorrhage during the attempts to restore breathing. There had appeared to be some paralysis, but the coma had been so profound that it had been difficult to ascertain its extent.

Dr. Biggs said that, with regard to those cases of death which were almost instantaneous, he agreed with Dr. Mendelson that they were due to reflex inhibition of the heart, and could be explained on no other hypothesis. Certainly suffocation could not cause death so suddenly. He had never seen a case of cerebral hemorrhage as a concomitant of suffocation. Such hemorrhage, did not, as a rule, occur during violent effort. Ruptures of the aorta and of aortic aneurisms were prone to occur during intervals of quiet. He had seen so large a number of cases of death by suffocation from foreign bodies in the air-passages that he had become impressed with the fact that innumerable instances of death in this way occurred in which the cause was unrecognized.

Dr. Mendelson related the history of a case of death from a supposed foreign body in the larynx. A woman had awakened

from sleep, had missed her false teeth, and had immediately come to the conclusion that she had swallowed them. Symptoms of distress and suffocation had come on. She started for the New York Hospital and was picked up by the ambulance, partly insensible. After the history had been elicited and her condition been taken into consideration, preparations were made for immediate tracheotomy. Before this could be effected she died. Her false teeth were found in a fold of her dress.

Ligation of the Carotid and Subclavian Arteries.

In the Transactions of the College of Physicians of Philadelphia for 1887, Dr. Wharton reported a case in which Dr. John Ashhurst, Jr., tied the right carotid and subclavian arteries for innominate aneurism, the patient making a good recovery. More than two years after the operation he is known to have remained well, and, as far as ascertained, has had no return of aneurismal symptoms since, a period now of more than three years in all.

In the *University Medical Magazine*, Jan., 1890, Dr. Ashhurst reports a case in which the right carotid and right subclavian arteries were ligated and in which the aneurism was manifestly aortic, though possibly involving the innominate artery also, and it therefore offered less prospect of benefit from operative measures than that above referred to.

P. A., aged 49, a machinist by occupation, was brought for advice in regard to a large aneurism on the right side of the chest, apparently originating from the ascending portion of the arch of the aorta. The patient had for twenty-two years been a hard worker in machine shops, his work including heavy lifting with the use of the sledge hammer, and sometimes occupying night as well as day. In October, 1888, after a period of unusually hard labor, he felt severe cutting pains in the right side of the chest above the nipple, and subsequently perceived pulsation in the same region. No tumor was noticed for six months, but in April, 1889, he observed a small swelling about three inches to the inner side of, and three and a half inches above the right nipple. This swelling pulsated and steadily increased in size, the tearing pains continuing, being particularly distressing in the region of the spine, and the patient becoming so short of breath that he was obliged to maintain the sitting posture during sleep. No exertion could be made without causing severe dyspnœa, but there was no cough. The tumor measured between three and four inches in each diameter.

The patient had received very careful medical treatment at his home, but without benefit, and was anxious to submit to any operation that might offer even a chance of relief. After watching the case for a few days Dr. Ashhurst resolved to adopt the method of double distal deligation, which in one case (Heath's) had afforded relief which lasted over four years, and accordingly, on October 19, 1889, he exposed and tied, with strong chromicized catgut, the right common carotid artery, in the usual position for this operation, above the line of the omo-hyoid muscle and the right subclavian in its third portion, where the artery crosses the first rib. The immediate effect of the operation was to produce great interference with circulation and respiration, the patient becoming black in the face and almost ceasing to breathe, so that it was necessary to suspend the administration of the anæsthetic and hold ammonia to the nostrils before proceeding to close and dress the wound. The patient's temperature fell to 95°+, and for some hours he remained in a very critical state, the heart laboring under the increased strain thrown upon it by cutting off the flow of blood through the tied vessels; but gradually reaction was established, and by the next day the alarming symptoms had entirely passed away. From this time the patient's progress was satisfactory; the pulsating tumor in front of the chest became smaller and beat less forcibly; the pain and dyspnœa disappeared; the ligation wounds healed firmly, though rather slowly; and on November 21, thirty-three days after the operation, the patient returned to his home in Reading, still, of course, the subject of an aortic aneurism, but much more comfortable than when he entered the hospital, and with the immediate risk of a fatal termination to his disease apparently indefinitely postponed.

Dr. Ashhurst states that his personal experience with the operative treatment of aneurism of the thoracic aorta is limited to three cases—that just narrated, one in which he tied the right and one in which he tied the left carotid artery. In the latter decided relief was afforded by the operation,

though the patient died some weeks afterwards, while in the case of right carotid ligation the effect of treatment appeared to be quite indifferent. For the immense majority of aortic aneurisms medical and hygienic treatment alone should be recommended, but in selected cases the question of operation may properly be entertained. Should the position of the aneurismal tumor on the left side of the chest render it reasonably certain that the innominate artery was not implicated, the choice should lie between ligation of the left carotid alone, as recommended by Dr. Cockle, and ligation of that and of the left subclavian as well; should such a case be presented to him again Dr. Ashhurst says that he should be disposed to employ the double operation, which, while not adding materially to the danger of the procedure, would certainly be more effective than carotid ligation only in diverting the blood-current from the sac. When the tumor appears on the right side of the chest the innominate is apt to be involved in the aneurism, and under these circumstances the double operation (on the right side, of course) is to be preferred.

As to the part of the subclavian to be tied, on either side, the third portion—beyond the scaleni muscles—should be chosen. On the left side, the first portion of the artery is so deeply placed as to be commonly inaccessible—indeed it has only been twice secured under these circumstances, once by the late Dr. Kearney Rodgers, and once by Mr. McGill—and in no case, on either side of the body, has the operation ever been successful, its statistics showing the ghastly record of twenty cases and twenty deaths. Ligation of the third portion of the subclavian is, on the other hand, neither a particularly difficult nor, with the modern improved methods of treating wounds, a particularly dangerous procedure, and though its statistical results, as derived from the records of historical surgery, are sufficiently gloomy, it offers, in connection with ligation of the carotid, enough hope of benefit to render its employment at least justifiable.

Trichinæ in Swine.

Science, Feb. 7, 1890, says (quoting the *Brooklyn Med. Journal*) that Professor E. L. Mark has recently published the results of the examination of 3,064 hogs raised in the vicinity of Boston, Mass. (*Report of Massachusetts State Board of Health.*) The examination extended over the five years 1883 to 1888. The results show that 14.07 per cent. of the males and 10.61 of the females were infected with trichinæ. Similar examinations of Western hogs have shown only from two to three per cent. to be infected. Professor Mark reaches the conclusion that this difference is probably due to the character of the food given to those raised in the vicinity of Boston, and presumably in the vicinity of other large cities. Of the fifty-six raisers of the hogs examined by him, fifty-one fed city offal. The source of the infection he believes to be in the uncooked meat found in kitchen garbage.

Buccal Gonorrhœa.

The following notes of a case of buccal gonorrhœa, reported in the *Medical Press and Circular*, April 30, 1890, are typical of their kind: A girl, 21 years old, after *coitus ab ore*, experienced on the following day a peculiar dryness of her mouth with a disagreeable taste; and the third day the tongue and the lips were swollen and puffy; on the fifth day she had difficulty in swallowing and fluid of a blood-stained, fetid character escaped. Then, besides, vesicles appeared on the lips and ulcerated spots followed by detachment of false membrane. All the tissues of the mouth were injected and swollen, secreting fetid blood-colored fluid; the breath was offensive, salivation being moderate. The false membranes, on examination, contained microbes which resembled the gonococcus. Glycerine, subnitrate of bismuth, and chlorate of potash were administered and effected a rapid cure.

Third District Branch, New York State Medical Association.

The sixth annual meeting of the Third District Branch of the New York State Medical Association was held at Syracuse, N. Y., June 19, 1890.

The programme was as follows:

President's Address, Popularizing Sanitary Science, J. G. Orton, Binghamton; Medicine, Past and Present, H. O. Jewett, Cortland; Malposition of the Epiglottis, with Specimen, Joshua J. Sweet, Unadilla; Fractures and Dislocations of Vertebræ, Chas. W. Brown, Elmira; Dermatitis Multiformis, W. H. Dunlap, Syracuse; Supra-pubic Lith-

otomy, W. A. Moore, Binghamton; Radical Treatment of Stenosis of Cervix Uteri, Ely Van de Warker, Syracuse; Epilepsy and Treatment, W. B. Morrow, Walton; Study of Hystero-Epilepsy, with report of a case, Leroy D. Farnham, Binghamton; Recent Advance in the Radical Treatment of Hernia, Nathan Jacobson, Syracuse; The Special Gymnastics for the Treatment of Rotary Lateral Curvature of the Spine, Leroy J. Brooks, Norwich; The Limits of Mental Therapeutics, H. D. Didama, Syracuse; The Test of Dugas in Dislocation of the Shoulder, Frederick W. Putnam, Binghamton; Antiseptics in Midwifery, F. O. Donohue, Syracuse; The Significance of Albuminuria Occurring During Pregnancy, F. W. Sears, Syracuse; Importance of Early Diagnosis in Affections of Spinal Cord and Brain, B. A. Church, Oneonta; Extirpation of the Breast, Emery O. Drake, Elmira; Complicated Retention of Urine, G. M. Allaban, Margaretville.

NEWS.

—Steps have been taken in Chicago for the erection and equipment of emergency hospitals in preparation for the World's Fair.

—A furnace will shortly be erected in the Central Cattle Market at Berlin for the burning of carcasses condemned as unfit for human food.

—Dr. A. B. Lyman has been elected to fill the newly-created Chair of History of Medicine in the University School of Medicine at Baltimore.

—Dr. Friedrich Salzer, well known as having been Professor Billroth's chief assistant for many years, has been appointed Professor of Surgery at Utrecht.

—The sum of about five thousand dollars has been given by a daughter of the late Dr. Crane to build and equip a surgical operating-room at Bellevue Hospital.

—An Intercolonial Australasian Medical Congress will be held in Sydney, probably in September or October, 1891. The President-elect is the Hon. Dr. MacLaurin.

—Edward J. Mealia, M. D., died at Brooklyn on June 6 at the age of thirty-one. He was a graduate of the College of Physicians and Surgeons, of the class of 1883.

—Cardinal Lavigerie is having negroes trained as medical practitioners at Malta, and several have already completed their education and proceeded to Central Africa.

—Charles Horton Wilkin, M. D., died in New York on Friday, June 6, at the age of thirty-four years. Dr. Wilkin was graduated from the College of Physicians and Surgeons in 1878.

—The Nebraska Christian University was established and opened its first term in Lincoln last autumn. This year it has added a medical school, which will commence its sessions in September, 1890.

—A hospital has recently been established at Bayonne, New Jersey. Every endeavor has been made to make it complete in every detail and to give it the most approved appliances available in a hospital of its size. It has a capacity of forty beds.

—The Senate of Hamburg has authorized the construction of a furnace, with columbarium, at a cost of $19,000. The funds will be collected by a local society which has been in existence for several years and working quietly in favor of cremation.

—John A. Bosch, M. D., died in St. Luke's Hospital, New York, on Friday, June 6, of pulmonary and laryngeal tubercular disease. The deceased was a graduate of the College of Physicians and Surgeons, of the class of 1885, and had served as a member of the house staff of Charity Hospital.

—By a recent decree every one who wishes to practice dentistry and "phlebotomy" in Italy must henceforth have taken a legally recognized degree in medicine and surgery. Dentistry will, for the future, be taught in the surgical department of such medical faculties as possess the necessary equipment for the purpose.

—A petition has recently been presented to the Austrian House of Deputies, asking for the admission of women to the philosophical and medical faculties of the universities of the empire. It is stated that the petition was signed by 4,812 people, including many leading representatives of literature, art and science.

—According to press dispatches the Royal oculist, Archduke Charles Theodore of Bavaria, has just concluded what he terms a month's holiday at Meran, in the Tyrol. As soon as his arrival became known afflicted peasants from all the valleys and mountains of the Austrian, Italian and Swiss Tyrol flocked into Meran and were treated gratuitously by the Duke, who, in four weeks performed fifty-three operations for cataract and one hundred and seventeen minor operations. H. R. H. the Archduke celebrates his fiftieth birthday on August 9, 1890.

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Clinical Lecture.

ACUTE ARTICULAR RHEUMATISM.—TUBERCULOSIS FOLLOWING PLEURISY.—PNEUMONIA.[1]

BY J. M. ANDERS, M. D.,

PHILADELPHIA.

Acute Articular Rheumatism.

Gentlemen: This woman is thirty-nine years old, and her occupation is that of a domestic. She has been always sickly, particularly as a child. Two years ago she had an abdominal tumor removed. She had a bad attack of rheumatism in the fall of 1882, soon followed by signs of constitutional syphilis, falling out of the hair, iritis, and sore throat. The present attack of acute articular rheumatism came on suddenly. More frequently the onset is gradual. Another way in which rheumatic attacks begin, especially in children, is with heart disease.

When she was admitted to this hospital, about three weeks ago, her temperature was 104° F. I have noticed that when this disease has but several days of high temperature, followed by a rather sudden fall, relapses and complications are apt to be noticed. There is now profuse sweating, and a systolic murmur is heard at the junction, on the right side, of the second rib with the sternum; and this murmur is transmitted over the right carotid artery. There is no murmur near the apex, but one over the tricuspid valve.

The question now comes up: Is this an anemic murmur, or is it one due to rheumatic endocarditis? It is not anemic, because there is no venous hum heard, and the point of greatest intensity is not over the carotids. In the next place, she has dyspnœa and pain. If this murmur were due to interstitial change, it should be harsh, not soft and blowing as

[1] Delivered at the Philadelphia Hospital.

it is in this case. Again, there is very little, if any enlargement, of the left ventricle. Endocarditis occurs often in rheumatism. Some writers go so far as to say that it occurs in fifty per cent. of the cases. In pericarditis the pain in the region of the heart is increased by pressure, and pericardial friction sounds are heard, and there is also an increased area of cardiac dulness after the effusion occurs. In acute endocarditis the murmur is soft and blowing and never transmitted to the back. The remedy in this disease is salicylate of soda, 20 grains every two hours. After this has been taken for twelve hours, it is stopped during the remaining twelve, and fifteen grains of the citrate of potassium is taken every two hours. Some physicians recommend the benzoate of ammonium. If the heart is depressed the oil of gaultheria may be exhibited every two hours in fifteen-drop capsules with carbonate of ammonia. Concentrated foods should be given frequently. As a tonic a mixture of iron, quinine and strychnine should be given three times a day. The exhibition of the salicylate of sodium is to be kept up for a week after convalescence has set in, in doses of from ten to twenty grains three times a day, especially where the temperature falls early.

Tuberculosis Following Pleurisy.

This patient, a man, 28 years old, has been tapped twice on the right side for pleuritic effusion. There is still some thickening of the pleura on the same side, about the base of the lung. There is no dulness over the rest of the right side, but at the apex of the left lung there is tubercular infiltration. The question to-day is: Whether tuberculosis is more apt to follow than to precede a pleurisy? For a long time this question has been *sub judice* until now, when it is generally admitted that pleurisy is one of the more important causes of phthisis, if, indeed, it be not itself tubercular in nature.

Pneumonia.

This man is a bookbinder and forty years old. Eight years ago he had malaria and four years since he had a return of the same disease. For two months before this attack, he was ailing. He had a chill two weeks ago, and came into this hospital with severe pain in his side and a temperature of 104° F., which continued for five days. During this interval there was dulness on percussion, and bronchial breathing over the lower lobe of the right lung. He still has some dulness on the right side on percussion, and upon auscultation there are numerous sub-crepitant râles, indicating that the crisis is past; but his temperature is still too high to bear out this idea. The rusty sputum, the pain and dulness together with the auscultory signs on the right side indicated the existence of croupous pneumonia. As his bronchial breathing disappeared his expectoration became more profuse. Scarcely a symptom, then, remains of his illness but his high temperature. Some would maintain that this man is now tuberculous, but I believe that his lung will gradually clear up. It is, however, hard to give a correct prognosis while the man is in such a run-down condition as he is now.

Pneumonia is to be differentiated from capillary bronchitis, in which we have moist râles over both lungs; and also from œdema of the lungs, in which condition moist râles are usually numerous on either side. The diagnosis of pleurisy rests as much on general symptoms as it does on physical signs. At the beginning of pneumonia we have usually a rigor, pain below the nipple, cough, high temperature and great muscular prostration. All of these symptoms are more exaggerated than they are in pleurisy. Pneumonia gives dulness, but not as great in the later stages as pleurisy gives on account of the effusion; and in pneumonia we have bronchial breathing at the base of the consolidated lung, crepitant râles and the absence of pleuritic friction.

In the way of treatment this man has received carbonate of ammonium and alcohol, while his temperature has been lowered by the exhibition of quinine. For the pain hypodermic injections of morphine have been allowed. When the heart showed signs of weakness it has been stimulated with either wine or whiskey. The only drawback to the use of ammonium carbonate in this disease, is its bad effect on the stomach. When the patient has reached the stage of the disease arrived at in this case he is to be put upon quinine, and the iodide of ammonium, and, later, I shall add to this iron and strychnine. A great many physicians still adhere to the use of a poultice to the chest. This may be employed in hospitals among trained nurses; but the practical inconveniences attending its use in general practice makes the application of cotton wool to the chest—which will also

keep the skin moist and relaxed without needing to be so frequently changed—a far more pleasant and eligible application.

COMMUNICATIONS.

INFANT FEEDING.[1]

BY E. P. DAVIS, M. D.,

VISITING OBSTETRICIAN TO THE PHILADELPHIA HOSPITAL, PHILADELPHIA.

It is impossible to appreciate the problems connected with infant feeding correctly without a preliminary consideration of the digestion of the healthy infant. From experiments which I have recently conducted in the Philadelphia Hospital, I am led to believe that the digestion of the healthy nursing infant is not a hydrochloric acid, peptic digestion, as it is commonly taught and supposed, but that the milk is simply coagulated in the stomach by a ferment similar to that found in the stomach of the calf. By an examination of the stools of diseased babies suffering from intestinal catarrh, I found that, in proportion as the disease was severe and the stools excessively disordered, the proportion of undigested fat increased, while, as convalescence returned and the stools became more normal, the digestion of fat was better performed.

From the standpoint of clinical experience, pediatrists inform me that they are not prescribing pepsin as extensively as formerly, but that pancreatin and sodium bicarbonate have been found agents of decided value in treating dyspepsia in young children. It seems rational to conclude, then, that the stomach of the healthy baby is simply a coagulating bottle, which forms the milk into an exceedingly fine clot. By removing this clot from the stomach at various intervals after nursing, and by examining it under high powers of a microscope, I found that the clot consisted of albuminoids and fatty matter in a state of very fine subdivision. Bacteria were not present, and the clot was in a condition to be readily absorbed by the intestine. I found also that the same condition of affairs existed in the clots from the stomachs of infants fed upon diluted sterilized milk. We conclude that intestinal and pancreatic digestion is of paramount importance to the young child.

Turning now to the natural food of the healthy infant, we find mother's milk to be slightly alkaline in reaction, rich in fat, and considerably so in sugar, with a small percentage of albumin. When we search for a food most closely resembling this, we find that cow's milk differs from woman's milk, in containing less fat, less sugar, more albuminoids, and in having a slightly acid reaction. There is, however, no other food so closely resembling mother's milk.

Since the study of bacteriology, we are aware of a source of danger in cow's milk of which we were formerly ignorant. We know that whenever the average daily temperature reaches a point above 67° F., that albuminoid matter in milk, and in the water of ponds and streams, tends to decompose by fermentation. This fermentation, sooner or later, is attended by the presence of bacteria, and milk so fermented introduced into the stomach of the young child becomes a potent source of disease.

Sterilization of milk consists in destroying these germs by the application of a high degree of heat and pressure of steam; it is effected by the use of different forms of apparatus, one of which I show you; it consists of a tin box having shoulders about two inches above the bottom, upon which rests a perforated tin tray containing the bottles of milk; these bottles are corked by a rubber cork in the centre of which is a glass plug; water is put in the box sufficient to reach to the bottom of the tray; the bottles are filled with milk and corked, and the whole is placed upon the fire. As the milk heats, the glass plugs are removed, to allow the steam to escape, otherwise the bottles would break; after five or ten minutes the glass plugs are replaced, the corks are tightly pressed down, and the milk is boiled for twenty minutes or a half-hour. It is then put aside on ice to cool in the bottle in which it was sterilized, and when desired to feed the child a rubber nipple soaked in a solution of boric acid is slipped over the bottle, and the cork having been removed, the child is allowed to nurse. An equally good and simpler way is to cork the bottle with a well fitted plug of cotton; this prevents the bacteria from entering, but does not prevent the gas from escaping.

The sterilization of milk is effectual not only in destroying bacteria, but also in

[1] Abstract of an address before the Berks County Medical Society.

neutralizing tyrotoxicon. An instance occurred in the practice of my friend, Dr. Bennett, while at Atlantic City, where, in an institution for the care of infants, milk became poisoned by tyrotoxicon. None of the children were affected by the poison, as they were fed upon sterilized milk, while most of the mothers who drank the milk without sterilization were violently ill. It is evident that the best food for children will be cow's milk modified to resemble as closely as possible mother's milk and then sterilized.

The formula which seems best is one recently proposed by Rotch of Boston, which is as follows: Milk 1 ounce, cream 1½ ounces, water 5 ounces, milk-sugar 3½ teaspoonfuls. This is to be steamed in the bottle for twenty minutes, the bottle tightly corked with a cotton plug; after steaming remove the bottle. After it is partly cool, add half an ounce of lime water, then keep it on ice.

When a child is three or four months old there are several artificial foods which are very useful when mixed with milk, but for the nourishment of the nursing infant they are far from being the best substitute for mother's milk. In the case of children acutely ill milk should not be given at all, but barley water may be given combined with the white of a raw egg, and with whiskey or sherry wine. Free stimulation should be early employed in all acute diseases of infancy, and a child can be perfectly well supported by means of stimulants, barley water, rice water, or arrowroot water, or with whiskey and simply boiled water for twenty-four, thirty-six, or forty-eight hours, until the practitioner can empty the intestines of irritating matter, and thus give nature time to resume the digestion of milk.

Considerable difficulty is found in introducing sterilized milk for common use, from the fact that ignorant mothers do not understand its value, nor the way of using it. Efforts have been made to induce those who furnish large amounts of milk to keep sterilized milk for sale, but so far these efforts have been very little successful. In Philadelphia the Visiting Nurse Society has been sterilizing milk for poor children for a number of months, and has furnished over thirty gallons of sterilized milk. This is taken to the mothers by a trained nurse, the consumer paying for the cost of the milk, but not paying for sterilization, and in many cases not being able to pay for the services of the nurses. So far as I am aware, this is the first instance of the kind in which this has been done.

Of the value of sterilized milk there is no doubt, and it is safe to say that the infant mortality of the world has been reduced at least one-tenth by this process.

We do not claim that milk as taken from the cow always needs sterilization, but that in many cases, especially in towns and cities, it is an unsafe food for children unless so modified.

ELECTRICITY AS A REMEDIAL AGENT.

BY ANDREW GRAYDON, M. D.,
PHILADELPHIA.

Facts always carry more weight than assertion, demonstration than mere denial; the fair mind is always open to conviction from proof. And yet it seems characteristic of much human nature to condemn before testing; to find fault with and hunt for flaws in a line of action before any practical experience on its part has shown what there may be in it for good or evil. It is so much easier to condemn than to prove, especially if the critic is wedded to another method and blindly sets his face against any innovation. Prejudice stops impartial investigation, and generally adopts persecution as its weapon.

In our day the medical profession is divided as to the efficiency of electricity in the treatment of disease, and, strange to say, is split along the lines laid down. Strange, because we are hunting for health-giving forces, and should always be ready to receive every good agent and put it to the test. Those that have given electricity a trial in the spirit of fairness and have used it with the care and precision demanded by the rules which govern it, have either adopted it in appropriate cases, or, not wishing to do that, have given their testimony in its favor; whereas its bitterest opponents have no personal knowledge of it and have not taken the trouble to inquire into its principle. How many of its opponents have faithfully put it to the test of clinical experience? The results of such trials will bring demonstration and conviction that no amount of vituperation can shake.

Here is a case in point, that is typical of a large class met constantly in practice.

M. D., 32 years old, married 15 years, with one child 10 years old, and one miscarriage, presented herself to me with a history of excessive uterine hemorrhage continuing at intervals for the past three years. The bleeding lasted from fifteen to twenty days and was very profuse. There was no pain; simply flooding at the slightest exertion upon all occasions. The patient is pale, bloodless in appearance, emaciated to a degree and a type, in every respect, of profound and long-continued anemia. During this period of three years she has been under routine treatment and has derived no benefit whatever from it, being free from bleeding scarcely ten days in the month.

Examination showed an enlarged, flabby uterus, retroflexed, with a slight laceration of the cervix. She was first given galvanism, on alternate days, the positive electrode (Goelet's) in the uterus, 25 milliampères. Two applications of this was followed by an excessive hemorrhage, it being about the time for one of her outbreaks. At the cessation of this, on account of her prostration, she was given intra-uterine Faradism. This was changed for galvanism, but always with ill-results, so much so that the Faradic current was the one selected for her case. Her general improvement was marked and steady, and of a degree surprising to herself.

The first menstrual period after beginning treatment was five days in duration and the flow much diminished in quantity.

She was under treatment three months, the application being made twice or thrice weekly. At the end of that time she expressed herself as being better than ever in her life. Her menstrual periods appear at regular intervals of a month, last about five or six days and then cease. She has gained in weight, color and spirits.

Though I generally prefer to use positive galvanism in these cases, on account of its hemostatic action, in hers I could not; since it seemed to aggravate her condition. What high intensities would have done I could not prove. She could not endure more than forty milliampères. She was under this electrical treatment for three months and under the regular (?) management three years. Contrast the results.

The following case represents another class. A young woman came to me with this history. Aged 24; married one and a half years; never pregnant; for the past two or three years she has been suffering with a severe pain in the right groin, of a sickening nature. This is intensified at her menstrual periods, and is preceded with an aggravating headache for a week before the flow is established. Her condition is such as to force her to go to bed during the first three days of each month. The menstrual discharge continues for more than a week, intermittent, halting, with clots, never free. Coition always unendurable on account of the pain. Examination showed the right ovary to be prolapsed, enlarged and exquisitely painful. The soreness was so great as to cause the woman to spring partly from the examining chair when the organ was touched. This condition had been verified, before she came to me, by a thoroughly competent man, who exhausted routine treatment, and told her she could get no relief until the ovary was removed.

She was given galvanism at once. A positive carbon button wrapped in clay, cotton, etc., was applied against the inflamed ovary, and a negative clay pad was placed on the abdomen. At first the current was given three times a week, 25 to 50 milliampères. After two applications the sensitiveness of the painful spot began to abate, and at the end of the second week of treatment the soreness had entirely disappeared. The first menstrual period after using this treatment came on "without any pain or discomfort," and continued for one week. The woman's general condition she reported as being better than it had been for years.

She received two treatments between this and the succeeding menstrual epoch, which appeared on time, without pain, and lasted less than a week. At these two séances the current measured from 80 and 100 milliampères respectively. Latterly she has been treated at intervals of a week or ten days, with a current varying between 100 and 175 milliampères, of 5 to 7 minutes' duration. At her last visit she said she had done her washing without any pain for the first time in years. The pain on coition had also disappeared. She had taken no medicine whatever, except an aloin pill occasionally to regulate the bowels.

There is an analogy between this case and that reported by Dr. Rockwell (*Medical News*, Jan. 25, 1890), with this very important difference: My case has been relieved with the *ovaries intact*, and in Dr. Rockwell's the relief was given in the same way, by the same remedy, but not until another operator had removed the unoffending or-

gans, or *after mutilation.* A tremendous difference, as any one will admit.

We may be allowed to draw the same conclusions with him, when he says: "It is self-evident that an agent like the galvanic current, possessing such a marked influence over so many forms of pain of obscure origin, *should precede* (Italics mine) rather *than follow* severe proceedings for their relief." The two illustrative cases are their own demonstration of the value of electricity, and I place them against the theoretical objections of its opponents. With the support of men like Keith, Spencer Wells, Playfair, Bartholow; the developments of Apostoli; the dictum of Keith when he declares it almost a criminal offense to remove the ovaries or to do a hysterectomy for a bleeding fibroid before electricity has been tried; the accumulating results from earnest and honest workers everywhere; with all this which carries its own convincing force "dogmatic and theoretical assertions" of the non-value of electricity are worthless.

1338 Walnut Street.

Reports of Clinics.

PRESBYTERIAN DISPENSARY, CHINANFU, CHINA.

DR. ROBERT COLTMAN, JR.

Phimosis.

This man, a painter, forty-six years old, comes to us for a not unusual affection, namely phimosis. In his case, however, as you see, the orifice of the urethra through the prepuce has become so diminished in size as materially to interfere with the act of urination. This is a simple uncomplicated case, due to gradual constrictive growth of the prepuce. Phimosis to a moderate degree may exist without serious inconvenience, and in a majority of cases gives rise to no difficulty of urination; but occasionally, after gonorrhœa, or more frequently after chancre, the tissues of the prepuce become infiltrated with serum, which, undergoing organization, forms a permanent circular growth and finally renders urination next to impossible. This patient can urinate only a drop at a time. The proper treatment is to circumcise him; but he objects so strongly to this that I have consented to simply slit up the prepuce. This is not as elegant an operation as circumcision, but is equally effective. Avoiding these two larger veins, I, with blunt-pointed scissors, cut through the constriction by several short snips and the operation is ended. In these cases there is frequently very free bleeding, and I prefer scissors to a knife, as they cause less hemorrhage, I place a little styptic cotton against the cut surfaces, and will direct the man to return to-morrow, when we will dress the wound with a five per cent. solution of carbolized oil until the parts heal.

Ulcer of the Cornea.

This young woman, twenty-three years old, tells us her eyes pain her very badly; and upon opening the lids of the right eye we don't wonder at their paining. We find a large circular ulcer, a line or more in diameter, directly in front of the pupil; the cornea is infiltrated below, and the conjunctiva is very red. The left eye also has a smaller ulcer on the left of the pupil somewhat below the centre of vision. This cornea is much clearer than the other, and the ulcer is of more recent date. She has severe photophobia, and is suffering greatly from neuralgia of the supra-orbital nerves. I can elicit no specific history. Her tongue is heavily coated, and she says her bowels have not been moved for three days. We will give her two compound cathartic pills, to be taken at once and to be followed in the morning with a two-drachm dose of Epsom salts. For an application to the eyes I shall use two drachms of iodoform, finely pulverized, to half an ounce of castor oil. This we will prepare freshly, and place a few drops in each eye with a camel's hair brush, I shall also paint tincture of iodine over each eyebrow, which will considerably relieve the neuralgia; and after her cathartic has acted we may prescribe an anodyne. Absolute rest is necessary. Should there be danger of perforation, which seems not unlikely, we will anticipate it by a paracentis of the anterior chamber.

Ulcer of the Cornea.

This man, thirty-seven years old, a farmer, presents a case of ulcer of the cornea, but one very different from that of the patient who has just left us. This man first came here ten days ago, and has been under continuous treatment. He was exposed to a severe dust-storm some two weeks ago, and his eyes became much inflamed.

When I first saw him both eyes had several small ulcers above the centre of vision. On examining the upper lids, I found them both very rough with large granulations. These I scraped as smooth as possible and then applied a solid stick of acetate of lead to the bleeding granulations. Oculists would probably say that this procedure was ruinous, but it worked like a charm. The granulations yelded rapidly and the eyes began to improve. We are told in the books not to use lead or silver in treatment of ulcers of the cornea and as a rule I suppose it is a good precept; but there are occasions when it does not do to adhere so closely to sage authorities; and one has to decide all cases on their merits. I would never advise a lead solution as an application to a corneal ulcer, in fact, I would condemn it; but in an ulcer complicated with rough lids I should, as in this case, first scrape the granulations and then apply a crystal of lead acetate to the lid. For all small uncomplicated ulcers I use a solution of silver nitrate, one quarter-grain to a fluid ounce of water. Two drops of this solution is placed in the eye not oftener than twice daily. The constitutional treatment should be as is indicated. Absolute rest is always enjoined.

Some may object to this treatment as almost homœopathic; but in an experience of several hundred cases treated in this way, I have had universal success. In a number of cases otherwise treated, or by rest alone, I did not get equally good results: the time for a cure being much longer; and I am forced to the conclusion that this is an excellent application in the cases indicated. We shall treat this patient now upon this plan.

Opium Habit and Impotency.

This man is a magistrate, fifty-two years old, and comes to us claiming to be impotent. He says he uses an ounce of opium daily and drinks from three to five pints of huang-chin in twenty-four hours (strength about equal to claret). His bowels move once in from five to seven days. Considering the amount of opium he uses and wine he drinks it seems a wonder he is alive. To look at him you would think he was enjoying robust health; and in fact he says that with the exception of occasional attacks of vomiting, he does enjoy good health. As to the treatment of his impotence, that is useless unless he will reduce his opium. He says he will attempt this; but I know from experience that he will fail. He will try to reduce at the rate of half a drachm every other day. There have in my experience been a few patients who have successfully done this, but the large majority have failed. I shall prescribe for the man a pill containing ℞ Extr. nucis vom., gr. ¼; quinæ sulph., gr. i; extr. gentian, gr. ij; which is to be taken three times daily for six days, and, if he succeeds in gradually reducing his opium and wine, we will afterwards prescribe the hypophosphites and strychnia.

HOSPITAL NOTES.

KENSINGTON HOSPITAL FOR WOMEN.

SERVICE OF DR. CHARLES P. NOBLE.—REPORTED BY DR. H. E. APPLEBACH.

Saline Cathartics in Post-operative Peritonitis.

Reta P., colored, 22 years old, was admitted to the Kensington Hospital for Women with an enlarged and inflamed right ovary. She had been treated for some time by her physician, a very able man, without obtaining relief. After examination at the Hospital, removal of the right uterine appendage was advised. May 3, 1890, the ovary and tube were removed, a drainage-tube was introduced and the wound was dressed in the usual aseptic manner. Two days later the patient began to manifest signs of a developing peritonitis, with quite marked pain and tympany, the temperature rising and the pulse rate increasing. The discharge from the drainage-tube became quite gummy, evidently almost pure plastic lymph. One ounce of a concentrated solution of citrate of magnesia was given every hour until the bowels were freely moved, which resulted in the disappearance of all the symptoms as if by magic. Since then the patient has had an uncomplicated convalescence.

After abdominal operations, when purgation is necessary, it is not advisable to administer so large a quantity of fluid as is contained in the ordinary preparations of the citrate of magnesia. At the suggestion of Dr. Noble, the chemist connected with

the Hospital has prepared a concentrated solution of the citrate of magnesia, four ounces of which are equivalent in strength to twelve of the officinal preparation. This has been found to be an efficient and convenient preparation, and is very much more palatable than any preparation of Rochelle or Epsom salts.

The use of saline cathartics in the treatment of peritonitis following abdominal operations, has become so general, and the good effects obtained so constant, that it is of importance to have a palatable and at the same time an efficient preparation of the salines for use. This concentrated solution has also been in constant use, as a purgative, during the convalescence of operation cases.

PERISCOPE.

On Subcuticular Suture.

In these days when the surgeon's knife is much more frequently demanded than formerly, it is often necessary, in the more exposed parts of the body, to leave as little trace of its use afterwards as possible. This is especially desirable in operation wounds about the face or neck of women, for in them we cannot hope, nor is it desirable, that as youth passes into the fuller development of maturity, the growth of hirsute appendages will eventually conceal the mark which the operator has been obliged to make. Much has been gained in this direction by the introduction of antiseptics in surgery, by means of which we can in general insure an immediate union of the wound's edges. We thus substitute for the cicatrix, often thick and wrinkled, of a wound that has healed by granulation, the delicate, pliant and frequently almost unnoticeable scar which we seek to obtain in union by the first intention.

In a paper read before the Surgical Section of the British Medical Association at its last annual meeting, held at Leeds, Mr. Kendal Franks referred to the satisfactory results he had obtained, in this direction, by the employment of subcuticular sutures.

In the neck, for instance, when such a wound is small, and lies in a natural fold of the skin, the scar itself requires no concealment, for it would pass unobserved were it not that on both sides of it small points are most distinguishable, red at first and eventually white, which mark the points at which sutures have been inserted. Mr. Franks has frequently endeavored to avoid these marks by employing strips of sticking plaster to keep the edges of the wound apposed instead of resorting to stitches, but was obliged to abandon this method on account of the difficulty of insuring a perfectly aseptic condition of the parts; because when dry, no sticking plaster is reliable, and if it is rendered aseptic by immersion in an antiseptic solution its sticking properties are destroyed. And thus we run the danger either of not keeping the edges of the wound properly apposed, or by allowing the wound to become septic to delay union, in either of which cases the wound must heal by granulation, and the defacement caused by the scar becomes worse than that which would be due to the suture points. These considerations induced Mr. Franks to seek for some other plan which would insure union by first intention and would at the same time abolish the evidences of the needle. These points are gained by the use of a subcuticular suture. A fine curved needle is required, preferably one of Hagedorn's needles, and very fine catgut. The suture must be a continuous one. The needle is inserted horizontally, that is, parallel to the surface of the skin, at the cut edge of the wound, not vertically to it, and at a distance from the cut edge, as in the ordinary suture. Mr. Franks describes the method of inserting the suture in the *British Med. Journal,* Feb. 22, 1890. He says:

"I begin at a point about quarter of an inch from the upper angle of the wound. The needle is passed horizontally underneath the epidermis of the skin into the cutis vera and emerges again from the cutis vera at the angle of the wound itself. It is then passed in a similar manner into the cutis vera alone of the opposite side of the wound, beginning at the extreme angle and emerging at a point a quarter of an inch from it. The catgut is drawn through so as to leave just enough at the first point of entrance to enable it to be tied to the portion of the suture which holds the needle. This forms a standing point. The needle is again inserted horizontally into the true skin, beginning immediately below the first point of entrance and comes out again a quarter of an inch lower down; it is then passed similarly into the other edge of the wound, at a point corresponding exactly to the last point of emergence on the opposite side, being brought out again quarter of an inch lower down.

This method is continued until the lower angle of the wound is reached.

"It will thus be seen that the suture, before it is tightened, has the appearance of a ladder; the visible portions of the suture forming, as it were, the rungs; and if the suture has been properly inserted, these rungs will all be parallel. Now, when the suture is tightened, in the same way as we draw tight the lace of a shoe, you will see that the edges of the wound come accurately together, without the suture being visible or a single needle point appearing. The suture, you will observe, gives the wound a very slightly wavy appearance, which, however, eventually disappears. A knot may now be placed on the free end of the catgut and the rest cut off. Mr. Franks used this suture for several years, and his colleagues in the Adelaide Hospital have adopted it, and we are all satisfied with the results. It is certainly a little more difficult and a little more tedious than the ordinary suture, and therefore it is not employed for wounds in the covered parts of the body; but in the exposed parts and chiefly in the neck, it undoubtedly reduces the ultimate mark to a minimum.

"There is one class of cases in which this suture is of the greatest value; namely, in the removal of scrofulous glands from the neck. Especially is this the case with girls; but it is also most desirable in boys who desire to enter the army, where the regulations of the service prevent their adopting those means of concealment with which nature would provide them, and where the presence of an unsightly scar would arouse the suspicions of the medical examiner to the point of rejecting the candidate.

"A very great and salutary impetus was given to the more radical treatment of these affections by Dr. Clifford Allbutt and Mr. Pridgin Teale, of Leeds, and excellent results have been obtained by the early opening and complete scooping out of suppurating scrofulous glands, as advocated by them; but Mr. Franks believes that even more rapid and better results will be gained in those cases which we can approach even at an earlier stage, before the cheesy centres in the glands have broken down into abscesses and before the capsule of the glands has contracted adhesions to the surrounding tissues, while the gland is still hard and movable, then, through a small incision, perhaps an inch long, or an inch and a half, the gland can be easily enucleated, like the walnut out of its shell, and the resulting wound kept together by a subcuticular suture will leave a cicatrix which even a close scrutiny will only just detect."

Iodine as a Remedy for Vomiting.

M. Darthier (*L'Union Médicale*, December 10) bears testimony to the value of tincture of iodine administered internally for the relief of vomiting, a remedy recommended by the late Professor Lasegue in the vomiting of pregnancy. The author had observed its use in nineteen cases, eleven of which were tubercular subjects, and found that it is of more value in the vomiting of early phthisis than in that of the later stages of this disease. At the same time he gives instances of advanced cases with obstinate vomiting where the symptom was largely controlled by the drug. Amongst other cases he gives one of bronchial dilatation (subsequently fatal from acute tuberculosis) in a female, who, for three weeks, had regularly vomited after every meal. From the date of commencement of the use of the drug, she ceased to vomit, and after a week's treatment, which was not productive of any signs of iodism, was completely cured of the symptom. Apart from phthisical vomiting, M. Darthier finds it useful in alcoholic gastritis, in ulcer of the stomach, and in the vomiting of pregnancy, and of chlorosis, instances of which are recorded. He says that the majority of the patients take the iodine with pleasure; it often produces an agreeable sense of warmth in the stomach, lasting from five to twenty minutes. The dose is ten drops dissolved in 125 grammes of water, taken in three portions immediately after meals. In a certain number of cases, symptoms of iodism are produced, chiefly coryza; but a good many patients do not experience any such inconvenience from it.

Dr. Frederic Taylor, of Guy's Hospital, confirms Dr. Darthier's views. (*Lancet*, Feb. 1, 1890.) Dr. Gaunt, of New York (*Amer. Jour. of Med. Sci.*, April, 1883), found it valuable in vomiting from a variety of causes, acute indigestion, phthisis, hysteria, septicæmia, nephritis, acute catarrhal gastritis, drunkard's gastritis, and many cases of gastro-intestinal disturbance in children. He gave 3 to 5 minims of compound tincture of iodine at intervals of 15 to 30 minutes, or sometimes less frequently; to infants, 1 minim or half a minim. After reading Dr. Gaunt's paper, Dr. Taylor tried it in several

cases, and since then it has been a good deal used at Guy's Hospital. He administers it in doses from 3 to 5 minims in two to four drachms of water every half-hour, or every hour, for six or eight hours, and then, if it is necessary to continue it, he gives it at longer intervals. But he has found the result often attained after the second or third dose. He has used it, and known it used, with success in the vomiting of Bright's disease, in cerebral vomiting, in vomiting after chloroform, in the vomiting of migraine, in vomiting from gastric disease, and in other instances. He says that it does not always succeed, but that it has done good much more often than other drugs commonly used for this purpose, and that it is really a valuable addition to our means of treating cases of this kind.

Misuse of Hypnotism.

The *Lancet*, March 15, 1890, says that at Nuremberg a case of some public interest has recently been tried in the police court. A commercial traveler while in a restaurant told the waitress to look steadily at the white of his eye, and hypnotized her. On a second occasion he repeated the experiment, but this time the sleep produced was so profound that a medical man had to be called, who had the utmost difficulty in rousing the girl. The commercial traveler was accordingly summoned to appear before the magistrates, and the severe sentence of eight days' imprisonment was passed on him, which will probably be efficient in checking similar performances in that region. In France the practice of hypnotizing people for amusement seems to be very common, and unpleasant consequences are frequently reported. At a supper party in Paris recently one of the company hypnotized a girl, and was unable to rouse her. She was consequently taken to the house of a medical man, and after a time she recovered consciousness. The whole party were taken into custody by the police, and were not released until next day. Even when hypnotism has been practiced by competent medical men for remedial purposes, unpleasant accidents and ulterior consequences have again and again occurred, so much so that recently an order has been issued by the French Government prohibiting surgeons in the army and navy from practicing it. It ought to be distinctly understood both by the profession and the public that hypnotism is not devoid of danger at the time, and not infrequently has permanently impaired the moral and emotional control of patients. A medical man is bound, before recommending hypnotism for a patient, to weigh the question as carefully as he would that of the advisability of administering an anæsthetic.

Abrin.

Abrin is obtained from the seeds of the Indian licorice (*Abrus precatorius—jequirity*). It is a brownish-yellow powder, soluble in water. Abrin is an albuminoid or proteid substance, belonging to the class of unorganized ferments, and is exceedingly poisonous.

Professor Kobert, of the Dorpat University, is now subjecting abrin to a thorough pharmacological investigation. According to the preliminary communications from the investigator in *Merck's Bulletin*, April, 1890, the lethal dose, intravenously, is only 0.00001 gramme to each kilogramme (1 to 100,000,000) of the animal's weight. The enormous toxicity of this substance, therefore, calls for extreme caution in its keeping, handling and exhibition. Of therapeutic interest is the fact that Professor Kobert succeeded in inducing the well-known "jequirity ophthalmia" with abrin. This appears to disprove the older, bacillary or bacterial, theories of "jequirity"—poisoning, set forth by Carnil, Berlioz and Sattler, as quoted in the *National Dispensatory*.

Acetophone.

Acetophone, or methyl-phenylketone, which has been employed chiefly by some French physicians as a hypnotic, has recently been studied by Dr. S. S. Kamenski (St. Petersburg Dissertations, No. 70, 1888-89). The results of his researches are stated in the *Quarterly Therapeutic Review*, Jan. 1, 1890. He finds that it lowers the sensibility and interferes with reflex action. Large and medium doses produce a moderate amount of sleep. It quickens the heart's action, probably by stimulating the accelerator nervous apparatus. It increases the irritability of the respiratory centre, except in large doses, which may arrest respiration altogether. It lowers the blood-pressure by its action on the vaso-motor centre and by weakening the heart's action. Medium and large doses lower the irritability of the brain, and even small doses have a similar effect on that of the cord.

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BULLOCK'S BLOOD IN THERAPEUTICS

In a paper read before the Philadelphia County Medical Society, March 26, 1890, Dr. F. E. Stewart, of Wilmington, Del., presented an excellent synopsis of the recent history of the use of animal blood as an article of diet for persons under the care of physicians. He discussed the difficulties surrounding the use of bullock's blood, fresh or dried, and referred to certain manufactured articles, the essential ingredient of which is supposed to be blood, alcohol and glycerine. After further noting several French preparations of dried blood, in connection with the "Sanguis bovinus exsiccatus" of the *U. S. Pharmacopœia*, Dr. Stewart went on to describe a preparation which he has recently devised, and which he calls "Hemoglobin Compound."

The preparation consists of fresh defibrinated bullock's blood and extract of malt, of each three fluid ounces; glycerine and whiskey, of each one fluid ounce. This is mixed together. Of this mixture twenty drops may be given three times daily, and the quantity gradually increased until one or two tablespoonfuls are taken at each dose. It may be given undiluted, or administered with milk or water.

Dr. F. G. Deveraux, of Kezar Falls, Maine, who has been using the compound, finds that if fifteen drops be mixed with five teaspoonfuls of milk, and allowed to stand, it soon digests the milk, and an unsightly mixture results. He, therefore, advises that when it is given in milk, the mixture should be administered immediately.

When prepared as described above, hemoglobin compound remains permanent indefinitely, even when exposed to the air in a loosely stoppered bottle.

Shaken in the bottle, so that a thin layer can be inspected as it flows away from the neck, the preparation is of a bright garnet-red color, and of a rather thin, syrupy consistency. It has the "molasses-candy" odor and taste peculiar to the extract of malt. There is no appearance, odor or taste of blood.

In administering the preparation it is well to commence with a minimum dose, carefully watching the condition of the stomach, to correct any tendency to nausea if it exist. Usually, the preparation is tolerated by the stomach. In cases of great exhaustion ten to twenty drops may be given every half hour, for three or four hours; then one or two teaspoonfuls every three or four hours. For infants, from three to ten drops in each feeding is the dose. This may be dropped in the bottle, or, in case the child nurses at the breast, it may be given in a little diluted milk and lime-water after the child has been fed. Ordinary cases requiring tonic treatment may commence with a teaspoonful three times a day, and gradually increase the dose to a tablespoonful.

Hemoglobin compound is not a patent or proprietary medicine. It is strictly a pharmaceutical preparation, and introduced in conformity to all the requirements of science and the demand of the code of ethics. In order to have a uniform article prepared, Dr. Stewart has placed its manufacture in the hands of a firm of manufacturing pharmacists; but he has published the true formula, and any one has a right to manufacture the article and to call it hemoglobin compound, or anything else. But Dr. Stewart naturally feels that a good article is more likely to come from a firm that has large facilities for making and selling it than from persons who might have to prepare it in very small quantities, with correspondingly smaller facilities.

We call attention to this preparation because it appears to be a valuable addition to the dietetic articles now in use by physicians, and because the materials required for making it and the manner of combining them is plainly as stated to the whole profession, and no manufacturer making it can get any advantage over any other except such legitimate advantages as may be secured by preparing a good article and bringing it the notice of those for whom it is intended. Whoever may do this will do a good service to the profession and is entitled to its appreciation.

CHOLERA IN SPAIN.

About the middle of June it was reported that Asiatic cholera had appeared in Puebla de Rugat and other places (Albaida, Benigamin, Castalla, Carcagente, Gandia and Jativa), in the provinces of Valencia and Alcante, on the eastern side of Spain, but not on the coast, and on June 18 a few cases were said to have occurred at Malaga, about three hundred miles distant and on the southern coast. The latest reports are that the number of cases is growing less and it is to be hoped that the disease will disappear.

It is rather curious in connection with this reported outbreak that it has occurred in a rather mountainous part of Spain and not in close connection with any active seaport. The news from Malaga may be erroneous, and it is also possible that that from the small towns or villages on the east is much exaggerated.

MISMANAGEMENT OF THE PHYSICIANS' REGISTRATION ACT.

In the last issue of the REPORTER attention was called to the defects of the law for the registration of physicians in Pennsylvania and to the manner in which certain of its provisions have been neglected by the Prothonotary in Philadelphia. Following this, the Prothonotary and his clerk made statements which were published in the daily papers of this city and which were made to appear as denials of the charges contained in the REPORTER. The weakness of these seeming denials was probably apparent to those who read them; but, in order to make the matter clearer, the Editor of the REPORTER, accompanied by his representative, who was detailed to obtain the facts already published, and a representative of one of the most influential Philadelphia newspapers, visited the Prothonotary's office on June 21, and there confirmed the truth of every one of the statements made last week in this journal and secured an acknowledgment of their correctness from the clerk of whom the Prothonotary had said that he could "satisfactorily refute them."

As a result of the action of the REPORTER it was pleasant to note that great earnestness was being displayed in the Prothonotary's office to correct the errors which we had pointed out, and we sincerely hope that hereafter the provisions of the law—which is so carelessly worded as to demand the greatest care in its execution—will be more closely observed than they have been heretofore.

In saying this, we may add that the attitude of the REPORTER towards the Prothonotary and his clerk in the present exigency is

not meant to be that of a persecutor. It is not our desire to discuss men's motives; but it is well within our province to make an effort to correct errors or wrong-doing in connection with matters affecting the standing of the medical profession and the health of the community. Success in any such effort depends so much upon a reputation for making no charges which cannot be established, that it seemed proper in the present case to force an admission of what the Prothonotary had denied, and to do this in the presence of an impartial witness.

We regret that the unwise action of the Prothonotary and his clerk have compelled us to dwell longer on their delinquencies than we would have wished. Confession and amendment may be reasonably expected of public officials who have exposed themselves to such criticism as the REPORTER has made; and if hereafter the Prothonotary will do fully what the law commands, and what his fellow-citizens have a right to expect, the REPORTER will be very glad to give him the credit he will then deserve.

SANITARIUM ASSOCIATION OF PHILADELPHIA.

The Sanitarium Association is one of the most interesting charities carried on in the city of Philadelphia. It has a place at Red Bank, on the Delaware river, a few miles below Philadelphia, to which, every day during the summer, suffering and debilitated children are taken without charge in steamers belonging to the Association. There they are watched over by careful guardians, and any sickness suddenly occurring among them, or development of sickness already present, is attended to by physicians engaged by the Association. In this way every summer thousands of children, with their mothers who are too poor to themselves afford the luxury of this great means of refreshment, find recovery placed within their reach. This charity has attracted a great deal of attention and much sympathy, as might have been expected from its character, and as is understood in this city by the reputation of the men who conduct it, and who have contributed their means to make it possible.

Medical men understand how often the refreshing air from the water, as well as removal from the heated quarters of a large city, are the indispensable conditions of preserving the lives of little children, and will be able to understand how thoroughly a work of this kind is in the interests of some of the most unfortunate and most helpless of our fellow-beings, and how worthy of imitation in other parts of our country is this successful example of it.

Philadelphia is not the only city in which the children of the poor are provided with means of escape from the trials of the city in summer; but there is no place we know of in which this form of relief and aid is administered so thoroughly and so judiciously, or where such perfect facilities are afforded by those who contribute to it.

There are few large cities which are not so situated with regard to considerable bodies of water as to make it possible for them to adopt some means similar to those of the Sanitarium Association of Philadelphia for the benefit of little children; and it may be that if the attention of physicians is called to the matter, they may be prompted to taking steps which will lead to a wider extension of this beneficent work.

END OF THE VOLUME.

With the present number of the REPORTER we reach the end of the Sixty-Second Volume; and it gives the publisher pleasure to say to its readers that the time covered by the volume has been one marked by many evidences of prosperity. The already large circle of readers of the REPORTER has increased and is just now increasing at a rapid rate. The Editor will continue to try to make it deserve the approval of his professional brethren, by representing what he believes to be their best interests, without fear and without favor.

Book Reviews.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the Reporter.]

CLINICAL DIAGNOSIS: THE BACTERIOLOGICAL, CHEMICAL AND MICROSCOPICAL EVIDENCE OF DISEASE. By Dr. Rudolf v. Jaksch, Prague. Translated from the second German edition by Dr. James Cagney. With Appendix by Dr. William Stirling. With numerous illustrations, partly in colors. 8vo, pp. 398. London: Chas. Griffin & Co.; Philadelphia: J. B. Lippincott Co., 1890. Price, $6.50.

Dr. Jaksch's work on Clinical Diagnosis will be welcomed by students in this country, now that it has become accessible to English-speaking students by Dr. Cagney's able translation.

The book is thoroughly original and well up to date. The book is one that has earned great reputation in Germany and the English edition contains additions and explanations by the translator and supplemented by a valuable appendix by Dr. William Stirling, the translator of Landois' well-known work on physiology. The book abounds in excellent illustrations, many of which are colored. Special attention is given to the bacteriology of the blood, sputum and feces; and a chapter is devoted to the methods of bacteriological research.

VERHANDLUNGEN DER BERLINER MEDICINISCHEN GESELLSCHAFT AUS DEM GESELLSCHAFTSJAHRE 1889. Transactions of the Berlin Medical Society for the year 1889. Vol. XX. 8vo, pp. 476. Berlin, 1890.

The present volume contains the proceedings of the Society at its meetings between January 9 and December 18, 1889. The first part includes two hundred and sixty-two pages, and is taken up with the demonstrations, the minor papers and the discussions upon them; the second part, which comprises two hundred and fourteen pages, is devoted to the more important papers. The essential parts of several of the latter, such as "The Prophylaxis of Tuberculosis," by Georg Cornet, have already been given in the Reporter. The volume contains, as usual, a valuable synopsis of current scientific medicine.

LYMPHATIQUES DES ORGANES GÉNITAUX DE LA FEMME. Lymphatics of the Genital Organs of Women. By Dr. Paul Poirier. 8vo, pp. 60. Paris: Office of the *Progrès Médical*, 1890. Price, 2 francs.

Poirier describes the methods of making injected preparations of the lymphatics of the vagina, uterus, Fallopian tubes and ovaries, and gives beautiful woodcuts, almost like steel engravings, of the different preparations. The injecting fluid employed is mercury, and the method that of Sappey.

The author discusses the part played by these lymphatics in cellulitis and pelvic peritonitis. He refutes the theory of Lucas-Championnière, that the lymphatic trunks are the path of infection in purulent salpingitis and ovaritis; for, he says, if that were the case, the lumbar glands, which are in direct communication with the superior lymphatic trunks of the uterus, should be at the same time inflamed and in a condition of suppuration; but he does not know of a case in which this has been noted. He concludes that infection is by the mucous membrane, "at least for a certain number of cases;" but he is inclined to think that when the lymphatic system of the uterine peritoneum is better understood an important rôle will be accorded to it in the pathogeny of salpingitis.

ÉTUDE ANTHROPOMÉTRIQUE SUR LES PROSTITUÉES ET LES VOLEUSES. Par le Docteur Pauline Tarnowsky. Anthropometric Studies in Prostitutes and Female Thieves. By Dr. Pauline Tarnowsky. With twenty-eight illustrations. 8vo, pp. 226. Paris: *Progrès Médical*, 1889. Price, 5 francs.

Dr. Tarnowsky's studies in the field of anthropometrics is a valuable contribution to this science. Large opportunities for studies have been afforded her in the hospital for prostitutes at Kalinkine, and the prison of Litowski Zamok. The subject is dealt with exhaustively. Measurements of the skull, of the various features of the face and casts of the jaw are all carefully considered. The work is enhanced by a number of illustrations taken from photographs. The first part of the work is devoted to anthropometric studies in prostitutes; and the latter part to female thieves. These Dr. Tarnowsky classes as, 1, professional thieves; 2, prostitute thieves; 3, psychopathic thieves; and 4, occasional thieves. Numerous tables and extensive statistics serve to make the book very complete.

Correspondence.

Reduced Rates—A Disappointment.

To the Editor.

Sir: I desire to state that many of the profession of America who contemplate attendance at Berlin will brook disappointment with regard to the transatlantic passage.

A number of the lines give no reduced rates, as the profession have been led to believe; others just in time to reach the Congress. Again, unless one takes the precaution to secure rooms some time before sailing, detention will occur in New York—due to the immense travel to Europe at this season of the year.

I presented a voucher from Dr. Atkinson to an agent here whose line offered rates only in July. After finding all outgoing ships full, I finally secured *at regular rates* the last unengaged and presumably the least desirable room on board. Although I was pleasantly and profitably detained more than a week in New York City, a similar detention might not suit others.

Yours truly,

E. J. Beall, M. D.

Fort Worth, Texas.

Notes and Comments.

The Kola Nut.

An editorial note in the *Medical Press*, May 14, 1890, states that Professor Heckel, of Marseilles, has long made that peculiar African nut, the kola, a special study as regards its physiological effects. On April 8, he communicated the outcome of his experiments to the Académie de Médicine of Paris, through M. Rochard, who read the paper. The kola nut not only contains a small portion of caffeine—the active principle of tea, coffee and other similar drugs —but also several other alkaloidal bases. But these latter have not yet been so perfectly defined as has been the case with caffeine. M. Heckel has subjected the nut to an elaborate process of exhaustion with chloroform, whereby all the caffeine was extracted, and yet there remained a somewhat complex alkaloidal and tannic substance which proved very active. M. Heckel has separated this basis, and calls it "rouge de kola." Like the red basis of cinchona, this substance seems to have a powerful effect on the muscles. M. Heckel is strongly inclined to attribute the effects of the kola nut to this "rouge de kola," as he does not think the proportion of caffeine it contains sufficient to account for the marvellous results obtained; and, moreover, it must not be forgotten that these effects are still observed after all the caffeine has been carefully removed. M. Heckel has tried his experiments upon army men. On one occasion the colonel commanding the 106th Regiment, in garrison at Perpignan, took a small quantity of kola-nut powder (containing only about 0 gr. 12 of caffeine), and yet he was able to take a long walk, making the ascension of the Carrigon, a mountain of over 9,000 feet in height, all in twelve hours, with only twenty-five minutes' rest, and finished up his march in splendid style and without fatigue. Numerous other instances are on record where officers and men have performed arduous forced marches, without being in any way incommoded, upon a small pinch of kola-nut powder, such as would contain only about 0 gr. 15 of caffeine. The fresh nut, which is only chewed by the natives of Africa, also contains a rich oil; it is of an essential character, and is very active in exciting the nervous system. This essential oil, however, must be eliminated when the nut is used as an element of diet. It is in the form of a dry powder, or as a cake that M. Heckel has introduced it to the army and Alpine clubs. Many of the Alpine clubs, it is alleged, have generally adopted the kola nut as one of the principal items for a touring outfit, and find that they are thereby enabled to perform far more work with much less fatigue, and also escape all sensation of giddiness. M. Heckel is anxious that the kola nut should now be regularly adopted in the French army, not only for the men, but for the horses. He points out that the German military authorities are making experiments in this way. M. Colin and other members of the Académie de Médicine are, however, of opinion that caffeine is a much safer substance to work with, more especially as the active principles of the kola nut are but ill-defined, little known to any of them, and their action scarcely understood with sufficient accuracy.

Hereditary Transmission of Mutilation.

The question whether acquired mutilation in the parent can be transmitted to the child is one that often presents itself to the thoughtful biologist, and is one that perhaps would receive an affirmative answer from the majority of those who are accustomed to weigh the value of evidence. In most works on physiology in which the subject is mentioned at all, it is admitted that impressions made on the mother during pregnancy may affect the offspring, and cases are recorded where the father having a distorted finger from an injury, children were born with similarly distorted fingers; and others where accidental injury to an eye in one parent was followed by some defect of the same eye in the offspring. But when such cases are followed out, it will generally be found that they rest on hearsay, or that the facts have been observed or reported with little attention to the accuracy that is required to render them credible. Darwin, with his usual caution, remarks in his *Animals and Plants under Domestication*, that some mutilations have been practiced for a vast number of generations without any inherited result, and notes, with Godrou, that different races of man have from time immemorial knocked out their upper incisors, cut off joints of their fingers, made holes of immense size through the lobes of their ears

or through their nostrils, tattooed themselves, made deep gashes in various parts of their bodies, and yet that there is no reason to suppose that these mutilations have ever been inherited. Darwin refers, indeed, to the well-known experiments of Dr. Brown-Séquard, in which certain guinea-pigs transmitted epilepsy to their descendants after injury to the spinal cord; whilst others (after injury to the sciatic nerve, leading them to gnaw off their own toes) gave birth to toeless guinea-pigs; but after alluding to many other cases which have been recorded of cats, dogs and horses which have had their tails or legs amputated or injured, producing offspring with the same parts ill-formed, he remarks that as it is not very rare for such malformations to appear spontaneously, all such cases may be due to coincidence. Professor Weismann, in an essay on the supposed transmission of mutilations, expresses himself in much stronger terms. He points out that if mutilations must necessarily be transmitted, or even if they might occasionally be transmitted, a powerful support would be given to the Lamarckian principle, which is to the effect that a change in the structure of any part of an organism is chiefly brought about by exposure to new conditions of life which induces a change in habits; and this again leads to hypertrophy or atrophy of certain parts, and the modified parts are then transmitted to the offspring. On this principle Lamarck explained the long neck and the webbed feet of the swan, and the degeneration of the eyes in the proteus. Dr. Weismann refers to several frequently cited cases, and shows that they either rest on insufficient evidence or that their occurrence may be explained in other ways. Thus, in the case of the tailless breed of cats in the Isle of Man, there is no evidence to show when or how it commenced; indeed, it is probable that it is the outcome of a gradual process of reduction of the length of the tail, since a similar breed is found in Japan and preserved from an idea that such animals are better mousers; whilst the number of vertebræ that are suppressed may be as many as ten. He tells a good story showing the care that should be exercised in admitting the spontaneous origin of such anomalies. Last summer Professor Schottelius, of Freiburg, brought to Dr. Weismann a kitten with a congenital rudimentary tail, which he had accidentally discovered as one of a family of kittens at Waldkirch, a small town on the southern part of the Black Forest. The mother of the kitten possessed a perfectly normal tail; the father could not be identified. A closer investigation resulted in the following rather unexpected discovery. For some years past tailless kittens have frequently appeared in the families of many different mother cats at Waldkirch, and this fact is explained in the following manner. A clergyman who lived for some time at Waldkirch had married an English lady who possessed a tailless male Manx cat. The probability that all the tailless cats in Waldkirch are more or less distant descendants of that male cat almost amounts to certainty, and Dr. Weismann goes on to say since a male Manx cat has reached the Black Forest it might equally well arrive at some other place. In order to obtain experimental evidence on the point Dr. Weismann mutilated a number of white mice by cutting off their tails. As the families were successively born the tail of each member was cut off, until in the course of about fifteen months 901 young produced by five generations had been thus mutilated. Yet not only was there no instance of a tailless mouse being born, but in none was the tail shorter than 10.5 millimeters, the tail of a newly-born mouse varying normally from 10.5 to 12 millimeters in length. This result does not, indeed, prove that mutilations might not be inherited, but it does militate against the commonly accepted view that the mutilation of an individual is likely to be transmitted to the very next generation. The subject is one of much interest, and those who happen to meet with well-marked and well-authenticated instances of inheritance, if such cases ever occur, would do well to record them.—*Lancet*, March 15, 1890.

Oleoresin Peponis.

Louis Augustus Minner, Ph. G., in an inaugural essay, of which an abstract appears in the *Amer. Journal of Pharmacy*, June, 1890, describes a test of two samples of oil of pumpkin seed procured, one each from New York and Philadelphia. They were of a pale yellow color and became semi-solid at 32° F. One sample had considerable of a deposit resembling lard in color and consistency, and was rather freely soluble in alcohol. Both oils were administered for tænia, in the form of emulsion and in doses of half an ounce, followed by a dose of castor oil,

without expelling the tape-worm. He found, however, that the same quantity of the oleoresin of pumpkin seed promptly ejected large portions of the tænia.

For preparing this oleoresin the seeds were reduced to a coarse powder by triturating them in a mortar with pumice stone, exhausting with ether by maceration and percolation, and evaporating the solvent at a gentle heat. After washing the oil with some alcohol it formed a thick liquid of a red color, had a peculiar unpleasant odor and a disagreeable, rank taste. Its specific gravity at 60° F. is about 0.924. It is almost insoluble in alcohol, soluble in chloroform, ether, benzine and benzol, and does not congeal at 32° F. Strong sulphuric acid changes the color to green, then dark green, and after several hours to a dull red-brown, a blackish deposit being also formed. Strong nitric acid changes to red-brown, and after about five minutes causes violent effervescence, a disagreeable odor being given off, and, after cooling, a reddish-brown semi-solid mass is left.

Pumpkin seeds are not as frequently used as they would be if they could be administered in a more convenient form. The introduction of a reliable preparation seems desirable and, in Mr. Minner's opinion, the oleoresin is both a convenient and elegant as well as effective preparation. It can be easily and readily prepared, and is probably the most concentrated liquid form of pumpkin seed that can be devised. It may be given in doses of ½ to 1½ fluid ounce, in the form of an emulsion flavored with aromatics.

Pure Balsam of Peru not a Cause of Nephritis.

The possibility that the administration of balsam of Peru may result in nephritis has frequently been advanced as an argument against its continued use. Drs. Litten and V. Vamossy claim to have seen this unpleasant after-effect resulting from its use; and Nothnagel and Rossbach, in their work on therapeutics, distinctly state that the balsam of Peru, when given internally in large doses, is capable of producing gastro-intestinal catarrh, and inflammation of other mucous membranes. Landerer, and more recently still Drs. Bräutigam and Nowack, in the *Centralblatt für klin Med.*, No. 7, 1890, who have conclusively demonstrated that the continued use of the drug, in an emulsion in oil or in pill form and in large doses, is not followed by any nephritic or other inflammatory symptoms, although the resorption of the balsam was shown by the strongly acid reaction of the urine. Drs. Bräutigam and Nowack claim that the untoward effects of the balsam upon the kidneys, as noted by other observers, was probably due to an adulteration or impurity of the drug.—*Deutsche Med. Wochenschrift*, March 6, 1890.

Central Nervous System in Hydrophobia.

Professor N. M. Popoff, of Warsaw, has microscopically examined the brain and spinal cord from a fatal case of hydrophobia in a man bitten by a rabid dog, and found that nerve cells of the medulla oblongata and pons varolii undergo the most marked changes in the disease. The changes are identical with those described by Leyden and Erb under the name of "pigment atrophy" and by Charcot under that of "parenchymatous myelitis." The degeneration attacks almost all nerve cells in the said regions, but attains its maximal intensity in the nuclei of the cerebral nerves, affecting the motor nuclei by far less severely than the sensory ones.—*Vratch*, No. 14, 1890.

Suture of Both Tendons of Achilles.

At a meeting of the Allegheny County Medical Society, held Feb. 19, 1890, Dr. Buchanan reported a case of injury to one ankle joint, and to the leg on the opposite side, by a mowing machine. A man stepped in front of the cutting bar of a mowing machine and struck the horses; the animals responded immediately; the cutting bar of the machine cut off the tendo Achilles, passed directly through the ankle, cutting off both malleoli, both posterior arteries, and the tendon of the posterior tibial muscle. On the other side the section was higher up; it passed through the tendon of Achilles and cut a piece off the tibia. Both the tendons of Achilles were sewed with catgut—four stitches; the other stitches were put in place, and the usual antiseptic dressings applied without drainage. The man's wounds healed without any reaction or discharge whatever, and he walked well when the case was reported without support. The union of the tendons was perfect.

NEWS.

—The census enumerators have found in Philadelphia a woman 112 years old.

—Dr. Joseph W. Howe, of New York, died of apoplexy, June 7, on the Cunard Line steamer Umbria, on the way to Liverpool.

—The Hospital and Dispensary of St. Clement's Protestant Episcopal Church was opened in Philadelphia, June 16, with interesting services.

—A monument to the memory of Dr. Franz Anton Mesmer, from whom "mesmerism" derives its name, was unveiled at Dresden on May 26.

—A new university Poliklinik of Orthopædic Surgery was opened at Berlin on May 22. Dr. Julius Wolff has been appointed chief surgeon to the institution.

—It was reported, June 18, that yellow fever had broken out in Malaga, the germs of the disease having been brought in a cargo of cotton by a New Orleans steamer.

—Dr. Roger Keys died in Philadelphia, June 10, sixty-one years old. He was graduated at Albany Medical College in 1853. He was a well-known and public-spirited man.

—Dr. A. G. Walls, of Lock Haven, died suddenly at the Continental Hotel, Philadelphia, on June 16. Dr. Walls was graduated from the University of Vermont, Medical Department, in 1860.

—A brass tablet in memory of the late Miss Alice Fisher, originator and for years Chief Nurse of the Training School for Nurses at the Philadelphia Hospital, was unveiled June 16 at the Philadelphia Hospital.

—Annie F. Reynolds, the first woman dentist to graduate in Massachusetts, received her degree of D. D. S. from the Boston Dental College, June 19. She also received the first prize for senior honors.

—Dr. O. E. Ross, of Rockport, Maine, died recently at Sullivan's Island, Charleston, S. C., where he had gone for his health. Dr. Ross was graduated from the Berkshire Medical College, Pittsfield, Mass., in 1862.

—The will of Samuel Welsh, who died in Philadelphia, June 14, contains bequests of $50,000 each to the Trustees of the University of Pennsylvania and the Pennsylvania Hospital, and $25,000 to the Episcopal Hospital in this city.

—The new chapel in connection with St. Michael and All Angels' Home for Crippled Colored Children in Philadelphia, was consecrated June 18. It is the gift of Mrs. Bernard Henry in memory of her adopted daughter, Margaret Conner.

—Dr. Michael Lampen, a well-known physician of West Philadelphia, died suddenly June 18. He was born in 1831. He was graduated from the old Pennsylvania College in 1859. During the war he was a surgeon in the Satterlee Hospital, in West Philadelphia.

—A sub-agent of the State Board of Pharmacy is in jail in New York, on a charge of blackmail, and a warrant is out for the arrest of his superior, an agent for the Board of Pharmacy in New York city. They took "hush-money" from a non-registered pharmacist.

—Dr. Henry T. Child, a well-known and public-spirited citizen of Philadelphia, died in this city June 15, seventy-four years old. He was active as a temperance advocate and in the society for organizing charity, he also was very useful in aiding the Government during the War of the Rebellion.

—Dr. Lewis Rodman, a well-known physician of Philadelphia, died at his summer residence, Edgewater Park, N. J., June 20. He was born in Bucks county, in 1806; he studied medicine under the late Dr. Joseph Parrish, and was graduated from the medical department of the University of Pennsylvania in 1827.

—In two cases against Dr. Augustine Thompson, of Boston, who, it is alleged, fraudulently transferred several lots of property shortly after Mrs. Myra Beals had obtained a $40,000 verdict against him for alienating her husband's affections, Judge Allen in Supreme Court to-day decided for the plaintiff.

—Surgeon-General Hamilton, of the Marine Hospital Bureau, was informed, June 16, that a second case of yellow fever had developed on the British vessel Avon, now detained at the Chandleur Quarantine Station. He has also received a report from Merida, Yucatan, that twelve cases of yellow fever have occurred there and that there were fears of an epidemic.

—Dr. T. F. Berry, of Louisville, a graduate of the University of Louisville in 1890, and John Blankenbaker, a farmer living near Fisherville, Ky., went out to fight a duel, June 17, Dr. Berry being the challenger. When they were ready to fire the farmer stopped the duel on the ground that it would be an irreparable wrong if he should kill Berry, and he also had his own wife and children to remember.

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Medical and surgical reporter (Philadelphia)

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